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JANUARY 15 CENTS

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Here is why: Listerine treats colds for what they really are —acute local infections. And the quickest way to combat local infections, as any doctor will tell you, is to kill the germs involved in them. That is exactly what the Listerine gargle does.

The secret of Listerine's success, we believe, must be that it reaches the virus (germ) which many authorities say causes colds. At the same time it kills by millions the threatening "secondary invaders"—germs that usually inhabit even normal mouths, waiting until resistance is low to strike. Among them are the dangerous influenza and streptococcus germs. These "secondary invaders" are the germs that complicate a cold and produce inflammation. *They must be held under control.*

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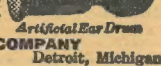

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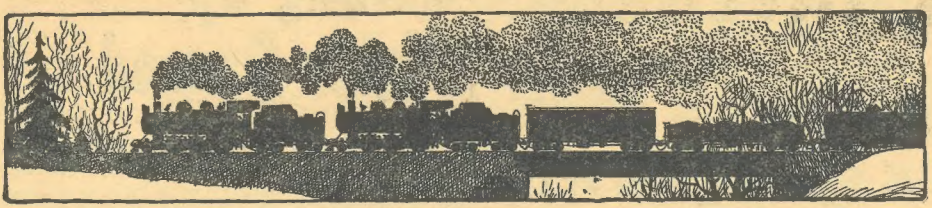

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The War Against Snow

By DAVID MARSHALL

Author of "Signals," "280,000 Railroad Bridges," etc.

BEYOND the tower at SK, where the tracks curl through a mountain pass, there was a sunset—but it was not the high-flaring red of summer. It was a lemon-colored sunset, pale and wintry; and it lay low beneath a cloud-bank. It cast upon the world a peculiar light. For miles about, everything looked sharp, clear and cold.

And that was a circumstance to be reported. It was, indeed, the "lighting up before snow." The operator at SK worded his message thus: "4.47 P. M. Clouds gathering; low and moving westward; western horizon still clear. Temperature 28." Almost instantly division headquarters was asking: "Any snow?" And the answer was: "Not yet. Will keep you advised."

Far away, somewhere over the prairie provinces of Canada, a cold wind awoke. Tearing and plunging, it swept across the lakes. It was picked up at 5.03 P. M. by the operator at MT, whose tower stood a hundred miles away from SK. And as soon at MT had reported, division headquarters was again demanding to know: "Any snow?" Again the answer came singing over the wires: "Not yet. Will keep you advised."

In sixteen minutes, two alarms: heavy snow-clouds and a cold, stiff blow—the makings of a blizzard. And so began a fight by a great railroad that cuts through the very heart of the snow-belt skirting the southern edges of the Great Lakes. It was a dramatic fight, though the division engineer, who fought it, says there was nothing in it but the routine performance of obvious duty, only the doing, as he said, of "the sensible thing sensibly."

Within the hour after that first call from SK, the sounders at headquarters were clicking as they had not clicked in many months before. The division engineer's staff had stayed on at their desks, or most of them had. One was told to keep in constant touch with the weather bureau; another to keep calling the local airports for every scrap of information they might have. And scores of operators in little towers along the line were under orders now to keep a smart lookout—for after the middle of October, every railroad towerman becomes a constant watcher of the skies, depended on to give the alarm at the first sign of snow.

It was four hours before any word was picked up of actual snow, and then

From Joseph Lavelle Collection

Virginia & Truckee Train, Hauled by Four Engines, Arriving in Carson City, Nev., Forty Years Ago, After a Long Struggle with the Snow

it came from the airport. But thanks to the canniness of operator at SK, steam was up at the roundhouses, snow-fighting equipment of every kind was out and ready, and thousands of men were awaiting the call to action. Every through train was double-headed. Every freight train was divided into two or three trains, each of these in turn was double-headed, and they were dispatched at steady intervals to insure a constant flow of traffic.

"Everything in the roundhouse" was out on the line or ready to go out, for it is one of the principles of snow-fighting today that a train every twenty minutes or so can keep the line cleaner than a rotary plow can make it after a normal night's inaction.

Meanwhile, too, the weather bureau had confirmed the guess of the division engineer, that snow was coming and

Photo from W. J. Mann, Casnovia, Mich.

A Home-Made Snow Plow, Built on a Flat Car. Snapped Near Reed City, Mich., about 1895. It Was Three-foot Gage

that when it came it would be a blizzard. At every interlocking point thereafter, and at every important switch along the line, the heaters were lighted—pans of oil that lie imbedded in the ballast between the ties from October to April, directly under the switchpoints.

By midnight the snow was general and heavy. Thousands of men in towns along the line were called out—not all at once, but one place at a time as the blasting, blinding storm crept over the division. Reports came piling in from every point at once, and the division engineer deployed his forces with economy, calling out none too soon and sending them only where they were needed.

Clearing the Central Pacific (Now S. P.) Line at Cisco, Calif., in 1867

As trouble piled on, other thousands of men were called out; not regular employees, but men supplied by local contractors, who normally employ great numbers of men, and who agree to throw in their forces to the railroad's aid in just such an emergency. The name, address, and telephone number of every such contractor is registered at the office of the division engineer; and likewise the names of other local firms under contract with the railroad to bring out sandwiches and hot coffee.

By morning the entire snow-fighting force was in action over a front nearly two hundred miles in extent. As many as 15,000 men were laboring to do what is the primary duty of every railroad—to keep the traffic moving. Everything they had was out, from the infantry of sweepers and shovelers to the heavy artillery of rotary plows.

The blizzard raged for thirty-six hours more; and for most of that time, with little sleep, the division engineer continued doing each "sensible thing" sensibly. But the main share of the credit for a splendid and successful fight, belonged, he told me, to the men who carried out the orders, and especially to operator at SK and operator at MT who had given the alarm; for with modern methods the snow-alarm, given in time, is half the battle won.

And if in the midst of all the havoc the wires had broken down, each local foreman would have carried on strictly according to a plan for his section.

Fought thus, it was a very different battle from those titanic struggles of years ago. Railroads in those other days were actually blockaded by snow. Trains were lost and buried in the drifts, and their people perished—for snow can drift high, and wet snow can pack so hard that locomotives are helpless against it. For sixty-four days in 1890, from January 20 to March 24, the Southern Pacific was closed between Portland and San Francisco.

Three years ago the Long Island was blotted out from one end to the other,

Raising the Snow Blockade of March, 1904, on the Elmira and Cortland Branch of the Lehigh Valley. The Snow Was Piled from Eight to Fourteen Feet Deep

There's Nothing Like a Husky Steam Shovel When It Comes to Clearing Hard-Packed Snow and Ice in a Cut, Like These on the Illinois Central

so far as operations go, for two days. And the current season has brought with it sufficient evidence that snow can still be the railroad's deadliest enemy, and worthy enough of the carefully worked out campaigns of scientific snow-fighters.

We have seen such a campaign as it was put in effect from division headquarters. Two of its features may be called modern: It was organized in advance, like a battle plan, with exceptional thoroughness; and it gave the snow a battering from the fall of the first flake. But the well-laid plan was modern only in the sense that it was kept so, worked over, improved upon, developed one step further every year; and the battering tactic, though comparatively new, is not less than thirty and may be forty years old.

A comparison is interesting. In the old days it was routine, in the face of a blizzard, to classify all freight as perishable, or non-perishable, and to push the non-perishable, the great bulk of the traffic, onto the nearest siding—to be snowed under, perhaps, and to lie there for a week or a month, depending on the kind of weather that followed. Every effort, then, was concentrated on the passenger trains, the perishable freight, and the plows.

Today we meet the blizzard by pushing all traffic along, and pushing it just a bit faster than before. By cutting every freight train to half or a third of its normal length, we assure ourselves against a breakdown of motive power; but we also double or treble the frequency of traffic. And we create all the additional traffic we can by sending out "everything in the roundhouse."

But the comparison implies no moral; and in justice to the men who fought the snows of half a century ago, it should be added that their tactic was most probably correct for the condi-

Just in from a Job: Plow Train on the Now Abandoned Narrow-Gage Sandy River Line, Snapped in Framington, Me., on Jan. 18, 1935

Photo by Linwood Moody, Union, Me.

Pennsylvania Passenger Train Plowing Through a Storm near East Aurora, N. Y.

tions they worked under, and that our tactic—vastly better than theirs—is possible only because our locomotives are so much better than theirs. A famous blizzard order went out from New York in the Christmas week of 1911: "Double-head everything, and put a rotary plow ahead of every passenger train with two locomotives to every plow." Given all those locomotives, it becomes a much easier task to fight a blizzard.

And in a similar way we have the advantage of heavier and sturdier special equipment. We pay as much as $65,000 today for a single rotary plow. But with this difference, and with the differences noted above, we still use in actual contest with the snow the same tools as were used half a century ago. Flangers, spreaders, plows, and explosives—not one of these is new. And the rotary plow itself is now well over fifty years old.

This is the heavy artillery of the snow-fighters, a complicated apparatus, mounted on trucks and driven by steam. It is costly both to buy and to operate, but in general this can be said of it, that snow cannot drift so deeply nor

pack so tightly as to make trouble for a good rotary plow. Many types have been in service, and designs have changed with every year, but each, in the end, is based on the same principle, and each does the same work. It bites into the drift after the manner of an auger, and it whirls the snow clear of the track—to the left or to the right, depending on the will of the operator.

The main element is a great fan-like wheel, usually nine feet in diameter and weighing, in many instances, as much as twelve tons. The wheel is poised in front, like the propeller of an airplane; but unlike that propeller, it moves inside a drum casing, which flares to a wider opening at front—bell-like, but with this difference, that the cylinder encasing the nine-foot wheel becomes an open square, every side of which is a cutting edge ten or eleven feet long.

Back of the wheel, the cylinder opens into a hopper; and in addition to this, the plow consists of a very powerful fan and an engine that turns both fan and cutting wheel. The whole apparatus is constructed to run on rails, but normally the rotary plow is not self-propelling. It is pushed into the drifts by a heavy locomotive; usually two locomotives are used, the first piping all her steam into the engine of the plow and the other supplying all the pushing power.

Thus driven into the drift, the rotary plow operates in this manner:

1. The open square in front encloses, slightly compresses, and holds tightly captive perhaps a hundred cubic feet of snow;

2. The hollow-cone blades of the cutting wheel engage this, biting into it swiftly and feeding it into the hopper; and

3. Out of the hopper, the fan blows the snow through a great nozzle high into the air and as far as sixty or a hundred feet to one side of the track.

"It's harder than sifting the ashes of hell," an old-time operator said. "You stand with your back to the boiler, and you're so hot in back," he said, "that the perspiration rolls down the legs of your pants. But in front you're cold, and the snow packed against the windows makes it impossible to see, except through one little peep-hole; and still you can't see because the drifts outside are two or three times higher than the plow itself.

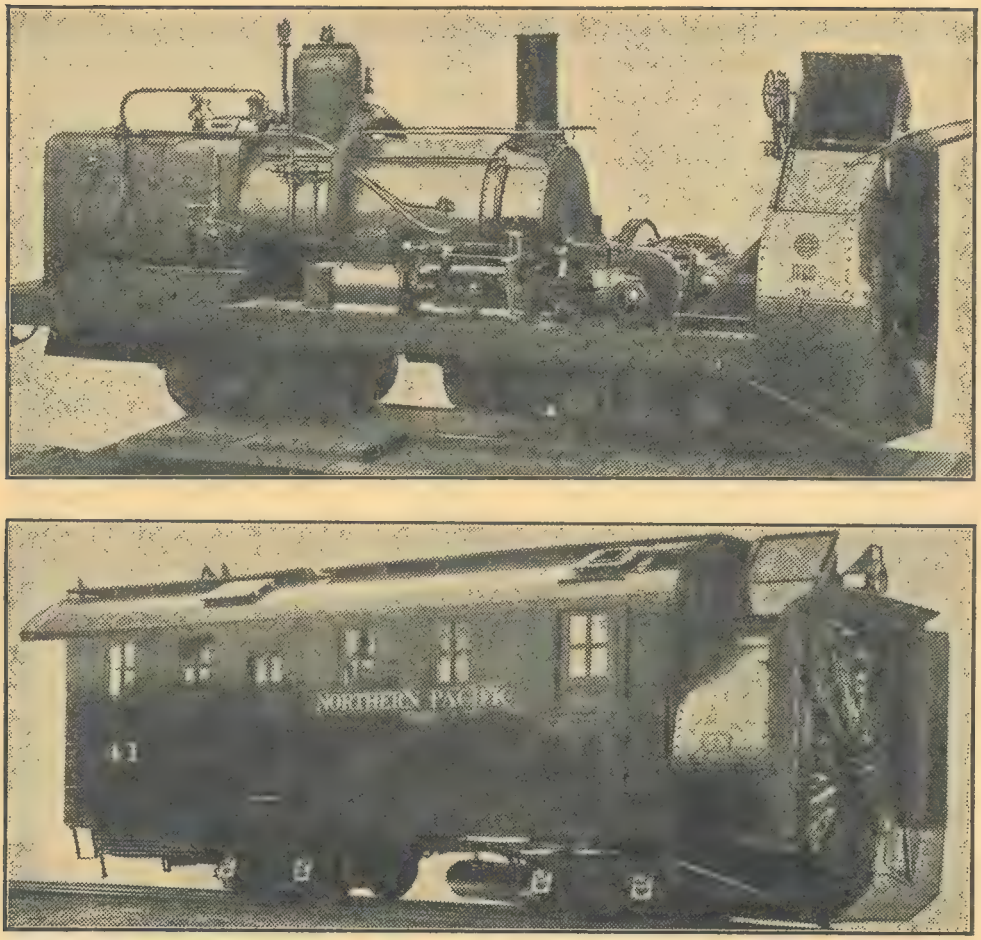
"You don't know where you're going and you don't care. You eat if you can. You don't sleep. You just stay at the wheel of the plow till the storm is over. The air is stifling from the odor of over-heated oil. But you don't let that bother you—you just stick."

Before entering the bank, the cutting wheel is brought to a speed of about 150 revolutions a minute; and when five feet off, it is speeded up. With powerful locomotives back of it, it enters the drift at the rate of three or four miles an hour. That is the normal thing. Some reports tell a very different story. There was a tightly-packed drift averaging twenty feet in depth. A powerful rotary plow, with all the pushing power it could stand, was able to make only sixty feet headway an hour —and the drift was three miles long.

When the tracks are buried by a snow-slide, the advance is always cautious, for while it is said that a good rotary plow can eat up the trunks of trees, boulders are something else again. It is usual practice, where slides are common, to send men over the top of a deep drift with long rods to probe for rocks.

One of the earliest rotary plows was

Try Avalon Cigarettes! Save several cents a pack! Cellophane wrap. Union made.—ADV.



What a Rotary Plow Looks Like, Inside and Out. The Whole Power of the Engine Is Used in Turning the Cutting Wheel and Fan; to Move Ahead the Plow Must be Pushed by a Locomotive

used by the old Central Pacific Railroad, now part of the Southern Pacific System; and in six hours it cleared more track than five hundred men had been able to clear in a week with the old-fashioned push-plows.

After that, the push-plows were definitely second-class equipment, and as such we use them today—hard-thumping little wedge-plows that simply replace the pilots of locomotives, and tall, graceful wing-plows that toss up snow as the prow of a ship throws aside the water. Fast-moving and efficient, they are the proper things to use for loosely packed snow up to five or six feet deep.

They are largely of steel today, but there was a time when the wing-plows were beautifully put together of hardwood, sand-papered, painted and varnished. Sixteen feet high and heavily braced, they were built over two heavy car-trucks, and with eight or ten locomotives to push them, they could take terrible punishment.

When they were the best equipment any railroad had—and when the drifts were tightly packed—bucking tactics often had to be employed. With pick

Photo by J. Knowles, 194 Grenadier Rd., Toronto, Ont., Canada

A Double-Ender Electric Rotary Plow of the Toronto Transportation Commission, Whose Line Runs from Toronto to Richmond Hill, Ont., about 14 Miles

and shovel, an opening was made in the snow, where the nose of the plow could enter. Then half a mile away, she got a flying start, hit it hard. If the drift was a long one, the next step was to dig both plow and locomotive out again; and then the process was repeated. The boilers were sheared off the framework of scores of locomotives, and scores of engineers lost their lives in this kind of "bucking."

And sometimes not even the mightiest push would do. In February, 1890, a string of nineteen locomotives—nineteen of the heaviest locomotives ever built up to that time—put all their power back of a single plow, but could not get through the snow in Emigrant Gap.

"Those old plows gave plenty of trouble, too," an old-timer states. "There was no view ahead, so the engineers just pushed and hoped for the best. Several times, on the Southern Pacific, cupolas were built on top, so that somebody could sit up there and see where the plow was going. But it was no use. The fellows couldn't 'take' it."

When it came to trees and boulders, the treatment was simple. Either the plow hurled everything aside, or the plow was smashed to bits trying. And ice was just as bad. Ice is bad at any time, so we try today to prevent its forming in the first place. We heat our switches the minute snow begins to fall, and we get after the snow drifts before they have a chance to turn to ice. Even so, we may be late. Only a few years ago the railroads about New York were treated to a show of weather unusual in the East. It began with a particularly heavy fall of snow that turned suddenly to rain, then back to snow again. As the blizzard tapered off, the temperature went down rapidly, and many a branch line was left under fairly solid masses of ice. They had to be cleared by pick and shovel.

Southern Pacific Rotary in Action in the Sierra Nevada Mountains, Winter of 1936

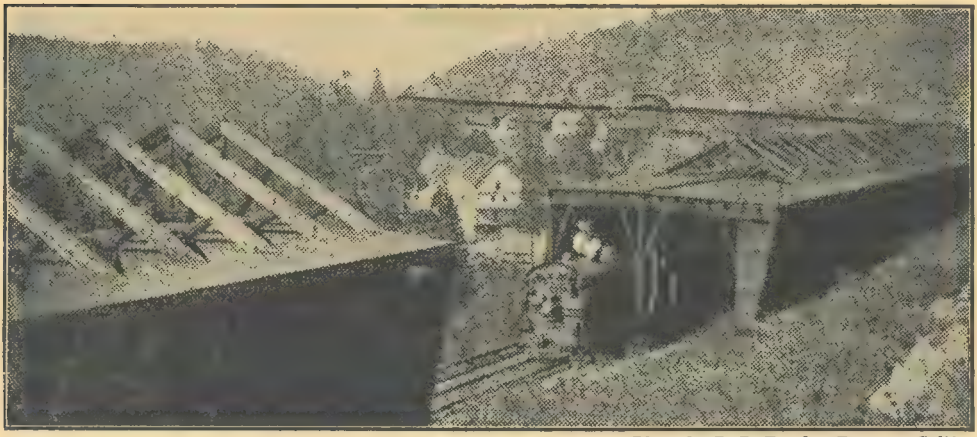


Photo by R. B. Trexler, Daggett, Calif.

Part of the Southern Pacific's 13 Miles of Snowsheds. The Fifty-Foot Gap, to Prevent Fire from Spreading, Is Closed in the Winter

Double Slip Switch, Equipped with an Electric Snow Melter, As It Looked after a 14-Hour Continuous Snowfall

But in the snow-belt that lies below the Great Lakes, that kind of thing is by no means unusual. The records of those parts are crowded with similar instances, and off in the Dakotas, the tracks have been laid under frozen cascades twenty and thirty feet high. Where that occurs, explosives are in order.

An expert can do very fancy things with blasting powder; and he can do it without injury to the roadbed. But for all that, explosives are still the last resort of the snow-fighters, and expert prevention has made their use in recent years comparatively rare.

And prevention work includes the work of all those men who keep watch upon the weather; it includes the plan for organizing the snow-fighters, and it certainly includes the battering down of snow under constant streams of traffic and cruising snow-plows. It also includes one other phase of snow-fighting which is strictly preventive—a phase that is summed up in the mention of snow fences, heaters, snowsheds.

Uninteresting things, maybe—but each has an interesting story, and the portable snow fence is a monument, in its modest way, to the cleverness of man. Its frail open slat-work may make it seem contemptuous. But the functioning of the snow fence is to cause artificial eddies in the air close to the ground. These in turn are depended on to bring the snow directly down and to hold it on the ground, where it piles without blowing—and not on the windward, but on the leeward side of the fence, actually between the fence and the railroad. That is why these slat-work fences are laid quite far away from the track and at so many different angles in different places.

The snowsheds belong especially to the Rocky Mountains, where roughly thirteen miles of them continue to protect the roadbed of the Southern Pacific. Gradually they are being eliminated, and the day may come when we shall see the last of them. In Canada, the famous Connaught Tunnel which bores five miles under the mountains, took

the place of many old-fashioned sheds.

But in their day the snowsheds have saved unnumbered lives. The earliest ones had peaked roofs and straight sides. Today they have heavy flat roofs and sides that slant outwards at the top, so that the ceiling is wider than the inside floor. Thus the accumulated snow on top is kept in balance, and the wedging effect of snow against the sides is eliminated. The sheds, originally continuous, now average 2,000 feet in length; and between them, to prevent the spread of fire in summer, are intervals of fifty feet. In the autumn, the intervals are closed by "telescopic" sections that move on rails in and out of one of the sheds.

The story of man's ingenuity continues through the history of the heaters. A kerosene pan that burns for six hours without refilling is the special pride of the Terminal Railroad Association of St. Louis, whose track superintendent was the inventor of it. On the Terminal Railroad there, 4000 of these heaters have been lighted before every blizzard in the past ten years, and under the worst weather not a single switch has frozen.

Natural gas and steam have also been used with good effect in this kind of work, and electric heaters that lie in the ballast between the ties are no longer new. But another type of electric heater is new. This consists of a rod-shaped "element" which may be cut to any desired length, and which is clamped firmly to the rail, running lengthwise along that angle between the railhead and the web. It is the latest development in the war against snow.

Cab Seats for Head Brakemen

AS a result of negotiations between the Brotherhood of Railroad Trainmen and the Ass'n of American Railroads, an agreement was reached regarding the furnishing of seating facilities on locomotives for head brakemen of freight trains, effective Nov. 1, 1937. Under the agreement, spring cushion seats with arm and back rests will be provided for head brakemen and are being installed on locomotives used for freight service, combination freight and passenger service, and combination freight and helper service.

Such a seat will be installed either in the locomotive cab or in a shelter cab placed on the tender, the location being optional with the railroad. Heaters are also to be provided in the shelter cabs in territories where necessary. The railroads are allowed five years in which to install such seats. All new locomotives covered by the agreement, however, will be equipped when built.

Today's Lesson in
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PROBAK JUNIOR BLADES

FORSAKEN

THERE'S a lone unpainted shanty
On a Western streak of rust
Which has broken windows boarded
And a siding gray with dust,

Where midnight breezes murmur
As they sweep across the sage
And the moonlight turns to silver
On the shingles curled with age.

As I stand outside the window
Dreaming, it seems I can hear
That old disconnected sounder
Shoving music in my ear.

"Nineteen order, copy seven;
Is the extra west in sight?
There will be a lot of traffic
By your little joint tonight."

Then I come to earth and shiver
As I hear a coyote wail,
Yelping on the moonlit prairie
Somewhere farther down the trail.

Still, I hate to leave that shanty;
Twenty years we held our trust—
I and that darned little office
On the Western streak of rust.

—C. D. Dulin, Newton, Kan.

* * *

A SOUTH PARK MOGUL

SHE was dingy, she was humble,
She was modest in the station;
The rust along her boiler plates
Proclaimed a poor relation

Of the proud ones, the mighty ones
That towered along her side,
She squatting on the narrow gage,
They strutting on the wide.

But when she cleared the city
She breathed with lungs of brass,
As proud as any empress
She stormed along the pass.

In plumes of black and silver
She crashed the canyon gates,
She rocketed up mountain cliffs,
She snorted where hell waits.

The courts have taken up her rails;
She rusts in Denver town;
From tender and from car-step
Her homesick men are down.

Busses roar now between the peaks
Where once her smokestack swayed,
But still I see the Old Gal's ghost
Go ramming up the grade.

—E. B. Turnbull

* * *

WANDERLUST

THE train has gone and left me here,
Sitting on a hill.
I watched it come; I watched it go;
And I am watching still,

Although I cannot see it now;
The train is out of sight,
Vanished into the wide Southwest
Into the starlit night.

And I am left here on this spot,
Alone and desolate.
All the trains go rushing by;
None of them will wait.

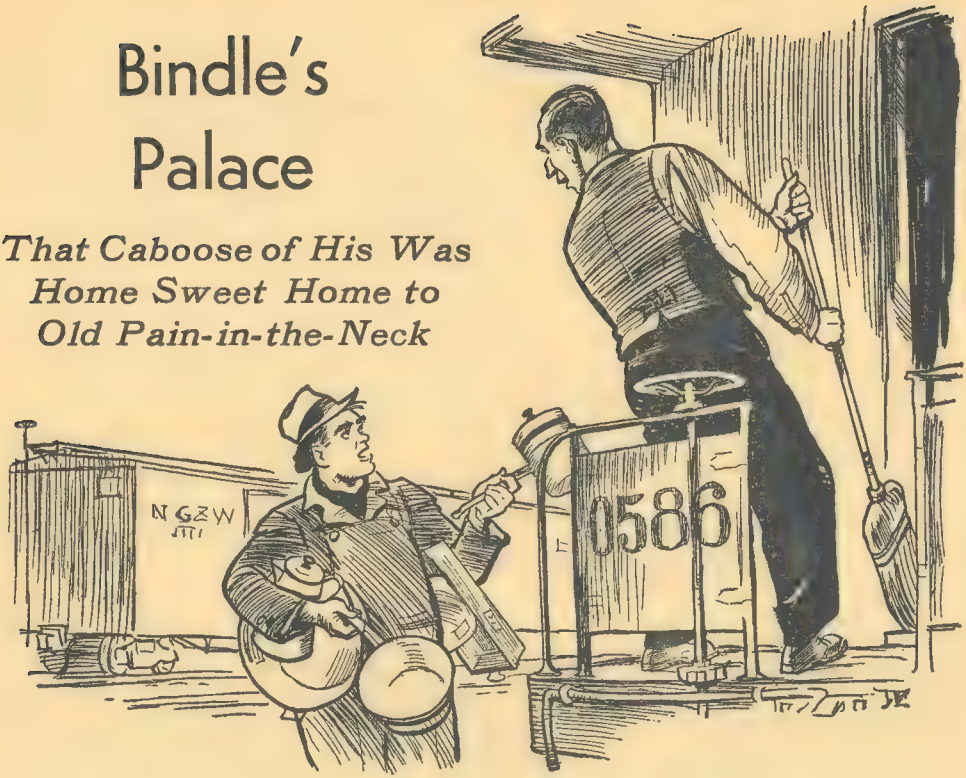
And I must sit forever here
(At least, it seems that way)
Watching all the trains go by;
I think I'm here to stay,

Stuck upon a lonely hill
Always left behind,
Eternally condemned to go
Only in my mind.

—Ethel Crow, Hematite, Mo.

Bindle's Palace

That Caboose of His Was Home Sweet Home to Old Pain-in-the-Neck



By GILBERT A. LATHROP

Ex-Fireman and Brakeman; Author of "Narrow-Gage Memories," etc.

OLD DAN BINDLE was a pain in the neck to the men of the Narrow Gage & Western Railroad. Dan was a chronic grouch, and you know how we all love chronic grouches.

Then Pug Marlow came along, and the very first time he saw the interior of Bindle's "palace" he tried to be Bindle's friend. And darned if Pug didn't move in with the old gent and take over the flagging duties. That was something; there wasn't another brakeman on the whole division who would work behind for Dan Bindle if he could hold any other crew.

Pug was a funny duck. Squat, with bunched muscles and a round face with a button for a nose. He blew in on the tail of an early fall blizzard, when every livestock man in the mountains wanted to throw his fat two-year-old steers on the market in a bunch, because beef prices were good; and just when the NG&W was straining every side-rod on its antiquated little engines to hoist those bawling, nervous beef critters up through the Black Canyon and over Old Baldy Pass.

Sure, the road needed men. Even bums like Pug Marlow could get a job. He was a bum, too, when he landed in Gilson. His ragged coat collar was

turned up around two beet-colored ears, while his head dragged deep between his shoulders.

One of the trainmen had told him the Narrow Gage was hiring men—"if they don't walk with crutches and can write the book of rules so that Chappel, our chief dispatcher, can make a stab at reading it."

"But I never worked around a railroad in my life," Pug answered weakly.

"That makes no difference, son," said the trainman, "if you can get past the doctor. Likewise," with a chuckle, "you might even get the parlor job with Grammaw Bindle."

Pug did not smile. He nodded his head slow and squatted closer together in the end of his empty boxcar. "Thanks," he murmured.

Chappel, the chief dispatcher, who acted in a whole flock of capacities including that of hirer and firer of trainmen, gave an appraising look at Pug Marlow and had him fill out an application blank right on the spot.

Three days later Pug's name appeared on the trainmen's extra board. Not even the most optimistic conductor on the west end figured he'd ever make a railroad man. From his first student trip it was evident he was as strange around the iron pike as a pig in a crockery store.

By the time October had merged into November some of the conductors were openly kicking about the stoical young buck. Not that Pug loafed on the job. There wasn't a lazy bone in his sturdy carcass. If anything, he was too ambitious, always getting under the feet of those with whom he worked. But they thought he was sullen and they just didn't like him.

One of the old heads, watching Pug set up the binders on a string of empty coal cars, made a discovery. "That uncommunicative imitation of a brakeman is muscle-bound," he announced.

Yes, sir, Pug moved around that way; like all the muscles in his shoulders were too short for any action and hampered him. A few of the boys had tried pumping him about his past, but in the end they knew as much about his past as before they started. Pug kept his prior life strictly to himself. Only one point was certain: He had never worked around a railroad before. Twenty-six years old on his service record, born in Minnesota, and that was all.

IT MUST have been the middle of November before Pug Marlow got a squint at the interior of Dan Bindle's caboose. Pug's crew had wallowed up through the fifteen miles of crooked, icebound canyon that night with a drag of dead freight—one of those runs that "fill to full tonnage out of Serene, double Cerro Hill and clean line coming east."

Bindle's crew had been working the west end all fall, but as often happens among us railroaders they had never stopped long around those crews Pug worked on. Tonight they had a meet at Sapinero; and Sapinero was the tiny town at the east end of the Black Canyon with half a dozen side and spur tracks, none of them holding more than ten cars, an engine and a caboose.

Pug's crew had cleaned the line so effectively his train contained almost fifty empty cars, while Conductor Bindle's outfit was going west with forty-eight empty single and double decks. The two crews had to saw.

During the course of the "saw" Pug walked past Bindle's caboose and the back door was standing open. The interior light—Bindle had bought an ornate, highly-polished hanging lamp

with double burners—illuminated the immaculate car as bright as day.

The brakeman froze in his tracks. It is doubtful if Pug had ever had a real home in his life. From his earliest memories he had lived in temporary slab shacks in the Northern logging country, picking a living as best he could. Now he found himself gazing with shining eyes at the closest thing to a real home he had ever seen.

It was the only big caboose on the Narrow Gage. Almost as long as a standard-gage crummy, it offered quite a contrast to the little four-wheeled cracker boxes housing the other crews.

Daniel Bindle had been assigned the big caboose, the 0586, many years before, when she came there new from the shops. Sentiment toward the lanky, grief-stricken young skipper had been responsible. Dan's wife of less than a year had been killed in an accident on Old Baldy Pass.

Everyone knew he was grieving. From the day his bride was buried, Dan had never set foot in the new home he had built for her. Instead, he sold the place and all but a few of her most cherished possessions. So when Dan asked to be given the 0586 "to sort of make a home out of fer myself," his request had been granted.

That was almost twenty years ago. Ever since, the slowly aging man had lived in it. He had gone farther. He had furnished the car from cupola to belly locker.

But during the past ten or twelve years the lonely conductor had been unable to get a brakeman to work behind for him any length of time. You know how it is yourself. You don't like to have a crab following you around with a dustpan and a broom whenever you come into a caboose.

Yes, sir, Bindle was spic and span. He even insisted on carrying a coach for the drovers when his crew handled livestock.

So, as I said, Pug Marlow found himself looking into Bindle's palace. Inlaid linoleum half an inch thick, pale green in color, covered the floor. Instead of the usual flat-topped round stove Pug saw a small enameled range with a warming oven and shiny teakettle bubbling on top. He saw Bindle's bed, built so it folded against the side wall, mattress, springs and all.

In the far end and suspended from the ceiling he saw a fifty-gallon hot water tank, under which was a glistening white lavatory and beside it a shower bath that could be curtained off when used. Pug noticed the neat scrim curtains that hung over all the lower windows, and Bindle's desk, a minute replica of those used in offices. He admired the framed pictures that were screwed to the walls, giving the interior a still more homey aspect.

Pug stood there drinking in every inch of the interior of the 0586 with his eyes. It put him into a sort of trance which was not broken until his conductor, hoarse-voiced "Uncle Ike," stepped up behind him and rasped:

"Well, Useless, have yuh tied up fer rest right here?"

Pug mumbled something and stumbled off into the darkness, his lantern making funny little movements to the motion of his muscle-bound shoulders.

FROM then on Pug hung around Dan Bindle's palace every chance he got. In less than a week he had made the acquaintance of the grumbling old conductor. A couple of days later, when Pug had a pay day, he bought a set of new enameled cooking utensils which he carried down and gave to Dan.

"Kinda figured these'd come in

handy, Mr. Bindle," he mumbled, and hurried off without waiting for thanks.

During the next week the taciturn brakeman brought more little gifts to Bindle. Even at that, it was a jolt which registered all over the NG&W when lanky old Bindle entered the chief dispatcher's office one morning toward the middle of the month and after growling about the "unappreciative hind men a conductor must tolerate on a good caboose," led up to his point with:

"I'd kinda like to have this new man, Pug Marlow, assigned th' flaggin' job for me."

Mr. Chappel blinked his eyes, nonplussed for once. Then he grinned. Here was a real break for him. Before, his pricking thorn had been the difficulty in getting a brakeman to work behind for Grammaw Bindle; and in listening to the old gent's eternal belly-aching about each hind man in turn. Now Bindle was *asking* that a certain brakeman be assigned to his palace.

Chappel didn't say a word. He just crossed to the trainmen's board and took the little red tag on which was written "Pug Marlow" from its hook on the extra board and stabbed it behind the name of Condr. Bindle. Then with a curt nod he resumed his seat at his desk.

Thus it came about that Pug Marlow moved in with Grammaw Bindle. In sheer delight the youth bought new bedding and new overclothes. Bindle, too, was delighted. For the first time in all his years on the 0586 he was able to stop following his rear brakeman around with a dustpan, broom and dust cloth.

Pug spent all his spare time keeping the palace immaculate as a new pin. You could easily see they formed a good pair, Dan Bindle and Pug Marlow. Neither man did much talking. Each lived his life pretty much inside himself. Pug, for the first time in his career, had a home almost his own and he was making the best of it—"simply wallowing in it," according to the other trainmen.

THANKSGIVING DAY came. Pug bought a small turkey and hired a widow in town to stuff it with oyster dressing and bake it to a perfect golden brown. The widow made mince and pumpkin pies also. Pug brought them down to the palace Thanksgiving morning and carefully stowed them in the icebox. At dinner time they would be warmed in the oven.

Bindle's crew went west that day. A thin skift of snow covered the rolling, sage-dotted hills between Gilson and Sapinero. In the Black Canyon winter had imprisoned the sullen, blue-green water of the river under a twelve-inch shield of glittering ice, all except the more turbulent rapids.

The short train clanked around the twisting corners, a mat of fleecy white steam from light exhaust flowing along the tops of the cars. During the next six months no ray of sun would penetrate into the half-mile-deep chasm. The only life there would be weasels, minks, water-ouzel birds and passing trains.

Bindle rode the left side of the cupola while Pug sat at the right, eyes watering from the sharp breeze and ears fiery red from the icy air.

At Milepost 319, five miles west of Sapinero, where the canyon wall rose sheer from the left side of the track and the opposite wall broke into a narrow side gorge, Pug abruptly jerked his head in the cupola and looked at Bindle. This was the first time the brakeman had shown any enthusiasm since coming to the Narrow Gage.

During the past month a bunch of Swede timber men had come to the north side of the canyon, on Black Mesa, where the table land was grown thickly with forests of red spruce, white pine and lodge pole; and these men had set up a logging camp. Down this narrow gorge they had built a log chute, two thousand feet long, which ended above the icebound Gilson River.

This morning the timber men had started skidding twenty- and thirty-foot red spruce logs down the chute. As the train rumbled past on the opposite side of the river, an eighteen-inch-thick log, more than twenty-five feet long, came rocketing down the chute to leap high into the air at the bottom and land joltingly on the ice near the center of the river. Other logs followed.

"They're skiddin' logs!" shouted Pug, pointing across the river. "An' next spring when th' ice goes off, they'll have a run! That's my—"

His voice grew silent and his face flushed. Abruptly he poked his head and shoulders out the window again.

The falls a mile below the log chute were indigo, with white froth dancing. A sullen roar filled the canyon above the clank and rumble of the passing train. Above, the water level was only a scant six feet below the ends of the ties, but below the falls it was fully twenty. The rock-lashed river was not frozen here.

"It'll be a job to make the run through the falls," mumbled Pug to himself.

Near the west end of the canyon, where the Gilson River widened into a great body of placid water, a handful of men were constructing a crude sawmill. Here the logs would be converted into both standard- and narrow-gage railroad ties after the spring run. Stout cables were being stretched diagonally from shore to shore at the lower end to steer the logs to the mill. Cars for tie loading could be set on the spur track at Crystal.

BINDLE'S crew came into Gilson that morning in charge of a stock train. A short time after his train halted, the lanky old conductor shuffled into Chappel's office. The chief dispatcher had enjoyed three weeks of serenity.

Bindle threw his weigh bills on the desk, registered in, and then tipped his slouchy black felt hat on his head and scowled.

"Chappel," he demanded, "did yuh hear my palace when she passed your office this A. M.?"

"No, couldn't hear above these telegraph instruments. Why?"

"Well, she's messed all to hell," exploded the old crab, "on account of a dumb, no-good feller who'll never be a brakeman in a thousand years!"

"Mashed up?" Mr. Chappel frowned.

"Naw, but the hind pair of wheels has got flat spots a foot long on 'em, because Pug Marlow set the brakes up with a club when we had to double into Cedar last night."

"Then forgot to let 'em off, huh?"

"Yeah, Chappel. We backed up maybe a quarter of a mile when th' engines came back after th' hind end of our train. Marlow was out on top like a plumb idiot. I want him pulled off my crew!"

The chief dispatcher got to his feet. "You asked for Marlow to begin with. Now you want to get rid of him, huh?"

Bindle nodded decisively. "He's no good. Never will be!"

The DS decided to end this eternal controversy once for all. Fixing Bindle with cold eyes he shot: "Maybe we'd

better pull you off the 0586, Bindle, and assign some other skipper to her!"

Bindle swallowed rapidly. "But all my furnishings—" he gulped.

"I know nothing about your furnishings," Chappel said ruthlessly. "I do know that the NG&W still owns that caboose and you're just working on it. Also, I'm damned sick and tired of your eternal howling about your parlor men. I'm *not* pulling Marlow off the 0586, and that's final. If you don't want to work with him, sign up for some other caboose!"

Bindle paled; tried to answer, but no words came. Then he wheeled around and walked outside, muttering to himself. One thing was certain. If the chief wouldn't take that imitation of a brakeman off his crew, he, Bindle, would make things so hot that Pug would get off of his own accord!

Because the car shops were buried with bad-order cars the 0586 had to make a round trip before the flattened wheels were removed and new ones installed. This added to Bindle's wrath. And when a conductor sets his head on it, he can make life so miserable for a brakeman that the latter will do most anything to get away from his crew. You've met such men yourself—just plain mean rawhiders.

That's what Bindle was to Pug. He made the muscle-bound rear man pace through a fresh fall of snow in weather thirty below zero one night on Cerro Hill when the track for three miles behind could be seen from the cupola and they were stopped on four percent grade.

Pug stayed back there over two hours, trotting to and fro, threshing his arms against his body to keep circulation in his system and, when he was finally called in, had both ears frozen and the toes on his left foot frost-bitten. But he offered no complaint. The 0586 was his first and only home and he was sticking to it just as long as he could.

EVERYBODY knew about the falling out of Bindle and Pug. Everybody was watching them, wondering over the outcome. Since Pug tended strictly to his own business, he had no enemies among the men. And Dan Bindle had no friends.

Although Pug would never be one of those rare, natural-born railroad men, still he was dependable and not afraid of work. When cars were set out by his crew and he had the setting of the hand-brakes, it was a cinch those cars would never run away until the brakes were let off.

Christmas passed with Pug still holding the hind end job on Bindle's crew. Pug still kept the interior immaculate. Bindle was still raving about how "this company expects a man to put up with a dumb, bone-headed numbskull that don't know th' first principles of brakin' . . ."

By mid-January the weather had settled down to a steady period of thirty to forty below. In the Black Canyon the heavy ice over the river snapped and popped like miniature cannon explosions. The Swede timber men had a mountain of green logs skidded down their chute and piled on the ice waiting for the spring break-up. This log mountain was higher than the tops of the boxcars and broke the otherwise white monotony.

When Pug saw that pile of green timber he shook his head worriedly. To him it seemed the Swedes were taking long chances on a successful spring run down the treacherous narrows of the Gilson River.

Many carloads of mine props were

moving west from the slopes of Old Baldy Pass, ice-covered four-and-six-foot round timbers loaded into single-deck cars. Every westbound train carried several of these cars, and they had to be switched out in Gilson. As no switch engine worked on Sundays, the main-line crews had to make up their own trains.

The last Sunday in January found Bindle's crew called to go west. Bindle instructed Pug in a snarl—his usual way of speaking since the wheels had been flattened on the palace—"Got a car of props to pick off th' smelter track. Take it down an' kick it against th' palace while I line up th' rest of our train."

Pug nodded morosely and shuffled toward the roundhouse after his engine. He got the car of props, a box with the side doors nailed half open so the icy contents could be seen. They ran it down to the west end of the scale track, and Pug threw over the switch, then gave his engineer a *kick* sign.

The scale track was level and the palace set halfway down its length. The engineer took the *kick* sign literally. Pug caught the rear end of the tender, jerked the coupling, and threw a *stop* sign with his free hand. The car of icy props sailed down the scale track while the engine backed down the main and passed the boxcar which still clipped along smartly.

So Pug did not see the balance. He had not allowed for the level track nor the speed of the boxcar when it was cut off. It was rolling almost ten miles an hour when it came to the palace.

With a violent crash, the end of the car next to the caboose broke outward and spewed icy props all over the 0586 and the track. Some of them rammed into the end of the palace, going through the thin wooden walls like a butter knife through soft oleo.

UNAWARE of the accident, Pug rode the engine to the dispatcher's office and found his partner just coming out.

"Grammaw gave me the switch list," said the other brakeman, displaying it. "We got to pull th' Mack track and throw out half a dozen loads."

Pug nodded and motioned the engineer ahead. Later he saw Bindle heading toward the scale track and his palace. They were just shoving the westbound loads together on the main when Bindle strode toward them. The conductor's lower jaw was thrust out and his eyes blazed. Halting beside Pug, he touched him on the shoulder.

"Come on with me!" he commanded in a flat voice. "I want to show yuh somethin'."

Wondering, Pug followed him toward the 0586. It was not until he was within a few car lengths of the palace that he saw what was wrong. Thrown into the cinders between the scale track and the man was Pug's new bedding, all his clothes and the articles he had been purchasing from time to time for the palace. Then his gaze switched to the caboose itself.

Bindle had left the rear door open and Pug looked inside. The range was torn loose from its moorings and laid on its side. The hot water tank was hanging to the ceiling by one end while a trickle of water dribbled from a sprung seam. The interior looked as if a cyclone had smashed through.

"What happened?" croaked Pug when he found his voice.

"That carload of icy props an' no judgment on your part!" Bindle answered coldly, whirling around and

"What Happened?" Croaked Pug When He Found His Voice

striding toward Mr. Chappel's office.

Pug Marlow was fired at the investigation. Flattening a pair or two of wheels hadn't been so bad, because wheels were being slid constantly on the Narrow Gage & Western. But making a wreck out of the only respectable caboose on the pike was something else.

At the hearing old Dan Bindle was like an insane person. He shouted anathemas at Pug, he berated him, and when the super pronounced judgment —to pull Marlow out of service—Bindle yelled: "Which should have been done a month ago, when he slid the wheels like he did!"

Pug accepted his dismissal silently and disappeared from the railroad for almost a week. Then one morning he shuffled into Chappel's office for his final pay check. As it was given to him Pug wet his lips.

"About our—I mean Bindle's palace," he said softly, "is she bein' fixed up again?"

"Sure," replied the chief dispatcher. "It's in the car shops now and will be out in a couple of weeks."

Chappel felt a twinge of pity for the young fellow and tried to think of something that would help him.

"I guess it was plumb boneheadedness on my part," Pug went on more confidently. "Reckon I thought about as much of that caboose as Mr. Bindle. Only home I ever had. I liked the job too. Yuh know—" leaning forward and speaking very seriously, "if it would of saved my job here, I'd gladly paid for the fixin' of the palace. I got a little money in the bank and I could of had so much taken out of my pay check each month—"

"Railroads don't do business that way," Chappel answered kindly. "I'm

sorry, but the company figures the damage was caused by rank inefficiency on your part and . . ."

Pug turned and shuffled outside.

NEARLY a month later Chappel had almost forgotten Pug Marlow when a brakeman came into his office and said: "I was just talkin' to one of them Swede tie-hackers off Black Mesa. The gang have about filled the canyon with logs at 319. He told me they got one of our ex-brakemen working for them down there. Pug Marlow. Guess Pug knows his logging, from what this Swede tells me."

"He wasn't much of a railroader," said Chappel and let the matter drop.

Bindle's palace was completely repaired by this time and the old conductor moved into it again. If he ever gave a thought to Pug Marlow—the only man he had ever taken into the palace with him and accepted as an equal—he didn't let it be known. If anything, Bindle had pulled himself more deeply into his shell.

The spring break-up of ice in the Gilson River was late coming this year. Mid-March found the stream still icebound and the deep snows on the mountain sides frozen to brittle whiteness.

The third week in March a work train was ordered to go down in the Black Canyon and patrol ahead of the two daily passenger trains for snowslides. The weather was warming a little and this was the time of year that avalanche thundered down from the rims of the walls.

Dan Bindle's crew was called for the work train. His two brakemen stayed religiously away from the caboose, preferring rather to sleep and eat in one of the outfit cars comprising the train.

On the fourth day of their canyon patrol the weather grew uncomfortably warm all at once. The deep snow literally evaporated. Great patches of open lead-colored water appeared in the river in the canyon. Massive cakes of ice, two feet thick and a dozen feet or more square, broke loose from their winter anchorages and bobbed down the stream.

This sudden thaw saved the railroad serious trouble from snowslides, because that night the snow froze solidly to the granite, there to remain until completely thawed away. But the officials were disturbed about conditions down there. Chappel turned his dispatching over to his first trick man, and caught the passenger train, and unloaded where Bindle's work outfit was spurred out at Currecanti.

Bindle mumbled a greeting when Chappel entered the 0586. Then he grabbed an oiled mop and swabbed the chief's footprints which showed on the light green linoleum.

"Did yuh notice that log jam at Milepost 319?" asked Bindle, still working the oil mop.

Chappel nodded. "Those timber men should have known better than let the logs pile up as they did."

"Yeah. They're plenty worried right now. Cakes of ice pilin' up behind and the river raisin'. Them logs keep the ice underneath from meltin', too."

"Are they doing anything about it?"

"Ain't much to do," said Bindle.

THE work train chuffed out of the sidetrack and backed toward 319. Water streamed down the walls and ran in muddy trickles between the rails. The river had risen three feet since morning and was still rising.

The engineer halted a hundred yards below the mountain of logs.

This massive pile was slowly rising and falling, groaning above the sound of the falls. A handful of timber men moved up the track, gesticulating with their arms. Above the barrier the ice cakes and water had backed up, forming a lake which lapped against the ends of the ties.

Bindle stepped out to the back platform when they halted. Muttering something to himself, he gave the engineer an impatient *back up* signal. The outfit moved still closer to the log barrier.

Chappel came out on the rear platform. With an oath he barked at the conductor:

"What in hell you giving him a *back up* signal for? Can't you see that whole mountain of logs is likely to tumble down on us any second?"

Bindle's arm started to move in a *stop* signal which changed to a violent *washout*. The rear trucks of the caboose had raised to thump on the ties in the mushy snow and ice. Before the engineer got them halted, the trucks were slewed half way around and eighteen inches from the rails.

"Damn!" clipped Chappel.

Like a writhing giant in agony the logs raised, lowered, and ten thousand voices of complaint issued from them. Chappel turned wild eyes from the log jam to the head brakeman, who was wallowing through the mushy snow toward them.

"Cut this caboose free," he screamed, "and pull down the track away from here before this whole outfit is smashed under that timber!"

The brakeman needed no second bidding. Face dead white and beaded with sweat, he turned the angle cocks, lifted the coupling pin, and violently gestured a signal with his arm. The engineer was on his toes. With a jerk the train leaped forward, leaving the 0586 setting directly under the log jam.

"Quick, Bindle!" shouted Chappel. "Leave that crummy and come on!"

The old-timer shook his head doggedly. Then deliberately he went inside, carefully closing the door behind him. The engine and the balance of the train halted an eighth of a mile down the track, away from all danger.

"Bindle, th' fool!" yelled the rear brakeman into Chappel's ear. "Like a captain gonna go down with his ship! He'll be smashed to nothin' when them logs start tumblin' down."

The dispatcher nodded and tried to discern Bindle while he gestured the angular conductor toward him, hoping Bindle might see him through the glass in the door. But no sign of life came from the palace.

SUDDENLY Chappel stiffened and clenched his fists. A squat figure had come into view the other side of the caboose, a figure which advanced toward the lower side of the log jam at a shuffling run. The figure was carrying a peavey or lumberman's cant hook.

The peavey described peculiar motions as the figure moved to the edge of the jam and hesitated there a second. Then, with quick decision, the young man boldly leaped from log to log on the lower side of the moving jam. Near the center he halted and the peavey was brought into play.

A dozen seconds, while no man witnessing the drama of life and death breathed, Pug Marlow grunted and strained on the handle of his peavey. Suddenly he went backward, struggling to hold his balance. The log jam seemed to quiver all over as it settled fully eighteen inches. Again Pug brought his peavey into play.

With a sound like a deck of cards being shuffled magnified ten million times, the log jam began tumbling forward. Mighty logs upended, then abruptly disappeared.

The youth was fighting for his life, now that he had broken the jam. Half a dozen times he disappeared and each time those watching men felt sure he would not reappear. But miraculously he would bob up again, leaping from one tumbling log to another, always getting a little closer to the top.

After what seemed hours the squat figure of Pug appeared on the very tip of the moving pile. As though bidding defiance to the gnashing timbers, he threw the peavey far away from him and disappeared from sight.

The logs swept forward down over the falls until finally only tumbled remnants of them were on the shores of the Gilson River. Ice blocks followed.

The engine backed toward the caboose, with Chappel hanging to the end of an outfit car. He was off almost before they stopped and he leaped onto the palace platform. Opening the door, the dispatcher strode inside, only to halt in amazement.

Pug Marlow stood framed in the opposite door while Bindle faced him. Blood showed on Pug's face and exhaustion in every muscle of his body.

"—took my medicine like a man, Bindle," he was saying in a tense voice, "an' protected you, too. I could have told 'em at that investigation how you'd told me to kick that car of props into the scale track, but I didn't." Pug stopped a moment for breath. "We got along together all right, Mister Bindle, till th' wheels was flattened, which was no fault of mine either. Remember it was you give them engineers a *back up* signal—"

"But, Pug—"

"There ain't no man about yuh, Mister Bindle," the youth went on wearily. "Yuh're just a damned selfish, self-centered louse—"

"But Pug," interrupted Bindle in a voice Chappel had never heard him use before, "you saved our palace from bein' smashed to pieces today—"

"Sure. A feller never quite gets away from lovin' th' first home he ever had."

Then Pug was gone out the door, walking heavily up the track toward the other timber men.

TWO days later Pug Marlow pushed open the door to the chief dispatcher's office. "I don't know why yuh sent fer me, Mr. Chappel," he said solemnly. "But I got your letter to come an' see yuh, an' here I am."

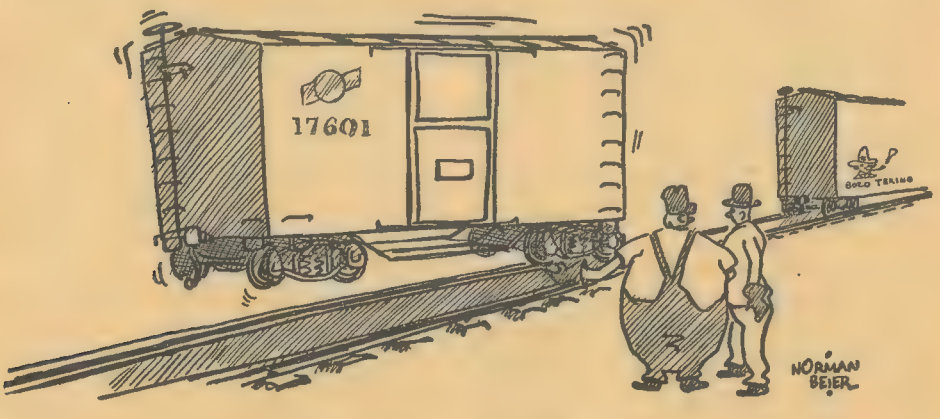
Chappel turned in his swivel chair. "Glad to see you, son. We owe you something for breaking up that log jam the other day. You saved this company inestimable damage to our track and roadbed. There's a little check waiting for you in the cashier's office. But that isn't all. If you want to go back on your old job as brakeman with full seniority—"

Pug's leathery skin crinkled in a grin. "Gosh!" he breathed. "I've *dreamed* of gettin' my railroad job back again. It sort of grows under a feller's hide, this railroadin'."

Chappel beamed. "Sure it does! That's the reason very few of us ever quit, once we start." He nodded toward the closed door to the super's office and went on: "Conductor Bindle is waiting inside there for you. It seems he wants to apologize for something or other—"

Pug didn't wait to hear the rest. He was entering the door to the super's office and Chappel heard him say: "Hello, Dan! Yuh wanted to see me?"

The Sunny Side of the Track



"Oh, That's a Load of Mexican Jumping Beans"

HARRIMAN AND THE CLOWN

RANDALL COMFORT, of Chappaqua, N. Y., sends us a good story on the late Edward H. Harriman, big boss of the Union Pacific and half a dozen other roads. The story was told by a circus clown, as follows:

One morning I was playing a bass drum in a circus parade at Newport, R. I. Our band wagon stopped in front of Mr. Harriman's office. A dapper little gentleman, bespectacled like a country school teacher, was standing on the curb watching us. I recognized him as the railroad magnate himself, and I called out:

"Hello, Eddie!"

The millionaire looked up and blushed, while spectators laughed. Later in the day, as the crowd was pushing its way into our circus tent, I saw an elderly lady leading a small girl. "Hello, Grandma!" I hailed her. She smiled back and I conducted them to seats.

That evening an usher told me that a gentleman was waiting outside to see me. I went out. There stood Mr. Harriman.

"Are you the clown who played the bass drum on the band wagon this morning?"

I admitted that I was.

"You called me Eddie," he said with a smile. "My name is Edward H. Harriman."

I replied: "I recognized you from your picture in the papers. You know, clowns are paid to get laughs."

"You got plenty from my employes," he said. "And now I want to meet the man who called my mother 'Grandma' this afternoon."

"You're looking at him right now," I said in confusion. "I did that, and I apologize."

"Oh, that's all right," the railroad magnate reassured me. "Here is my card with my New York address. Any time you are in the city, send in your name and I shall be glad to see you again."

Eddie kept his word, the clown concluded. I called on him several times and we swapped funny stories. Yes, sir, railroad presidents have their human side, just like you and me.

* * *

THE BOOMER OP

A BOOMER op swaggered into a super's office and asked for a job.

"Where are you from?" the official asked.

Pulling his mouth down at one corner and talking in the rasping tone peculiar to his tribe, he responded: "Well, buddy, I'm from everywhere. An' if ya gimme a job, I'll be from here damn shortly."

* * *

VERY SIMPLE

FARMER JONES was riding home on the Daylight Limited. Next to him sat a bright-looking young salesman. Every time they whizzed by a herd of cattle, the salesman wrote down a different number.

At length Farmer Jones' curiosity prompted him to ask: "What in the heck do those numbers stand for?"

"Every time we pass a pasture," was the reply, "I put down the number of animals there are on it."

Jones smiled sceptically. "The farm we will pass just before the next stop is mine," he said. "All the cows will be out in pasture. If you're so good, you'll be able to give me the exact number."

After they flashed by the Jones farm the young man wrote down "217," which was correct. The farmer was astounded and asked how he did it.

"The thing is really very simple," explained the salesman. "I just count the number of legs and then divide by four."

* * *

A RUGGED INDIVIDUALIST

F. G. MAXFIELD, of Manchester, N. H., clipped this one from the Boston Post:

Nevada's Senator Pat McCarran liked to tell stories about that narrow-gage railroad in the West for which he was counsel, because some Massachusetts capitalists eventually got possession of it.

The man who owned it before Boston money took it in hand was a cantankerous, fighting, picturesque, tobacco-chewing old hombre who could hate and swear and shoot and raise havoc when things happened he didn't like.

What especially annoyed him was the fact that a Government official of some importance, somehow got a pass to ride on the railroad. And although this rugged Western individualist owning the railroad was also its president, there was nothing he could do about it. That made him madder still.

But in his way he got even. He had signs painted for the car in which the Government official rode on the train. "This car," the signs read, "for Beetles, Cockroaches, Skunks, Garbage and ——," where he filled in the name of the Government official.

A DRASTIC ORDER

OLD Espee records tell about a certain work train on the Dallas-Sabine branch just out of Beaumont. When their work order expired, the crew took the train back to Beaumont to tie up. The yardmaster was short of switch engines that day, and needing some cars from a main-line siding which was within yard limits, he instructed the work-train conductor to take his engine and go after them. This the con refused to do, saying that his orders never permitted him to use the main line; and besides, his orders had already expired. The yardmaster appealed to the dispatcher, who said the engine did not need work orders within yard limits.

The argument waxed hot and heavy but the con was adamant; he would not go without orders. At length the dispatcher, in a rage, put out the following order:

"Engine—works extra between New Orleans and San Francisco from now until her wheels drop off."

The conductor promptly went after the cars.

* * *

ONE FIGHTER IS PLENTY

A SUPERINTENDENT on the I-GN at San Antonio, years ago, had a unique method of discipline. His favorite punishment was to give a culprit a thrashing. This he rarely had trouble in doing, as he was a big man, handy with his fists. One day a conductor went into his office looking for a job. The superintendent asked what road he came from and why.

"Espee," replied the applicant. "I got fired for fighting."

"Don't need you," the super said promptly. "I do all the fighting on this railroad."

CRACK MARKSMEN!

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TRUE TALES *of the* RAILS

Actual Happenings Told by Eye Witnesses

Hog in a Mudhole

By E. S. DELLINGER

IN 1907 when I went working for the Mop out of Osawatomie, Kansas (scene of old John Brown's famous victory), we had three merchandise trains, Nos. 51, 53, and 59 daily for the west. Assigned crews were handling these runs from Kansas City to Council Grove. At that time three brakemen were used from Kansas City to Osawatomie, but only two from Osawatomie to Council Grove.

As a result of this arrangement a swing man was assigned to each of the three runs. He worked to Osawatomie on the westbound merchandise, layed over there sometimes for a few minutes, often for several hours, and returned with the crew with whom he had worked down the preceding night.

Since these swing jobs paid continuous time from departure out of Kansas City until return, and since there was usually a long wait in Osawatomie good for several hours spot at two bits per, they were the best runs on the division. They were held by emergency conductors, men with plenty of "whiskers" who, during the rush season, were running most of the time.

Much to the disgust of the old engineers and conductors on the preferred jobs, student brakemen often caught these swing runs off the extra board and sometimes held them throughout the late summer and early fall. Many a time I caught one of them.

Each evening No. 59, due out of K.C. about nine o'clock, carried a merchandise car for Paola, Kansas. The crew was required to spot it in the house track behind the depot for unloading at a platform. In setting it out we usually went through a crossover from the main line just south of the depot. If the crossover happened to be blocked, we were then forced to go nearly a mile south and come back through the passing track with the car in question.

One autumn night I left Kansas City riding the smoky end on No. 59. Cal Stevens was conductor and Mat Gaffney engineer. Matt must have been well along in his seventies. At least, he was too old to be rawhiding around sixteen hours a day with Gould power over a mismanaged Gould road. Mr. Stevens was fifty or thereabouts. He was a big, two-fisted conductor, with plenty of tonnage and no love for student brakemen.

That night we carried an order out of Kansas City reading: "Crossover at Paola cannot be used." We all read it, even I, a student shack fresh from the corn row. When we stopped at Dodson tank I went back to look 'em over. (That's one thing a student can do, even if he doesn't know what he's looking for.) I met Mr. Stevens coming from the rear end.

He unbent sufficiently to say: "Kid, when we get down to Paola, you see if that crossbar switch is spiked; and if it ain't, take your car through there and set it out."

BELIEVING I had caught the old conductor napping at *that* switch, I piped up with: "Haven't we got an order that the Paolo crossover cannot be used, Mr. Stevens?"

"I read my orders, kid," he said sarcastically. "But if that switch ain't spiked, you go right ahead and use that crossover. There's no use going down to the lower end unless you have to. Probably some student split it this morning and they've had to spike it. If they have, more than likely it'll be fixed by the time we get down there. You go ahead and take that car through it if it ain't spiked."

I understood what he meant. Having run an engine through the switch without throwing it just a few days before, I had no doubt that Mr. Stevens was right in his reasoning, though I'd never have taken the chance on my own hook.

We stopped as usual in the clear of the crossover switch. I cut off the car and went down to examine it. The thing was not spiked. I lined it for the crossover and signalled the engineer to come on. He whistled "Stop!"

I gave him another "Come on!" Again he whistled "Stop!" Whistled it like an old head talking to a student. I closed the switch and walked back to the engine. Mr. Gaffney signed for me to come up into the cab. Not knowing that the proper thing for a brakeman to do when the engineer wants to talk to him is to make the hogger come down, I climbed into the cab.

Gaffney asked caustically: "Didn't ye read yer orders, young mon?"

"Sure," I replied, "but Mr. Stevens said—"

"I don't give a domn what Mr. Stevens said. I'm not taking this engine through that switch."

I was in a quandary. I knew very

well if I went down the main after Conductor Stevens had instructed me to go through the crossover, I was in for a heel chewing. The hogger refused to obey my signal, so the only thing I could do was to wait.

Soon the conductor came barging over, fat, wrathful, and blowing like a porpoise. I could hear him talking ten cars away. When he came within shouting distance, he bellowed:

"What in the hell are you fooling around here for? Is that switch spiked?"

I informed him it wasn't.

"Then why—*WHY* didn't you take that car through there and set it out like you was told?"

"I opened the switch but the engineer wouldn't—"

Stevens shoved me out of his way and went up the engine steps. He and the hoghead had a nice little argument. Enginer Gaffney said he'd sit there all night before he'd go through that switch. Stevens said if the hogger didn't go through when he got the signal, he'd get a railroad lantern hung around his neck. Finally:

"Now, I'm going down there and line that switch; and when I give you a signal, you'd better come on."

The conductor tried the crossover switch. It worked beautifully. I knew it did because I had lined it both ways a few minutes before. He walked down almost to the frog, lifted his lantern and peered under it along the track. There was a dense fog that night. As far as Stevens could see through it, the track was all together.

He signalled ahead. The engineer did not move. Again he signalled; still no response. Finally, talking to heaven and the stars about stubborn hogheads in general and this one in particular, Stevens started toward the engine.

I KNEW the old engineer couldn't see too well. I should have been on the pilot, where I could look ahead and be on hand to open the switch; but, student like, I was hanging to the hind end of the head car so I would neither get left nor become embroiled in an argument which was not exactly mine.

The engineer was watching. When the conductor started toward him, Gaffney knew it was his move. He kicked the reverse into the corner, snatched out a few yards of throttle, and sent the old monkey in motion through the switch about twenty miles an hour.

Maybe the old hogger's eyes were playing him tricks in the fog; maybe he was so mad he was not even watching ahead. He shot in almost clear of the main line, but not quite. The world caved from under us. My hands slipped off the grab-iron, and I took a nose dive into a puddle of cinder soup.

When I collected my anatomy and crawled out, I walked down to the head end where the engineer, the firemen, and the conductor were disgustedly viewing a hog in the mudhole.

You see, Conductor Stevens had jumped to the conclusion that whenever a track cannot be used, it is due to the fact that a student brakeman has split the switch. This time he was wrong. Instead of that, the gandy dancers had removed rails and ties from the whole lower end of the crossover. The hog had hit the hole and buried her nose to the pilot bar in soft Kansas mud.

We spent the rest of the night and much of the forenoon trying to coax that pig out of the mudhole. But she was contrary. She refused to leave the mire until the big hook came and lifted her out.

Of course, being a student and not considered as having yet arrived at

the age of accountability, I was not punished for my part in the affair. But the conductor and the engineer each drew thirty days. I don't know how Stevens took it, but I heard afterward that Gaffney almost grieved himself to death, lamenting to one of the boys years afterward that it was "the first trick I'd lost since the 1903 flood."

Do any of you guys who were standing around that morning remember when the chain broke while another engine was trying to pull that hog out of the mudhole? Remember the link that zipped out and hit the student brakeman in the ribs? Well, there's still a knot just under the skin where that darned old link cracked a rib for yours truly; and will be for several years—*I hope.*

An Engineer's Biggest Thrill

By "TURKEY" MOORE

NO FEELING of helplessness is so acute or terrifying to an engineer descending a mountain grade with a heavy train as having a full equipment of braking power in good condition and yet being unable to use it.

Such a condition is experienced by very few men, but actually occurred to me. It was, in fact, the most nerve-wracking experience I've ever had in thirty-five years as a boomer on more than fifty railroads in seven different countries.

At the time of the panic of 1907 American business fell off and railroads cut their personnel sharply; many engineers and conductors were laid off.

But in Mexico business remained good, for, with heavy mountain grades, difficult operating conditions and a shortage of equipment, the railroads were far behind in handling their freight. Millions of tons of ore remained on the ground awaiting cars for shipment while engine and train crews were being worked to death. There being no sixteen-hour limit of labor in that country.

Many of the railroad men who were laid off in the States blew into Mexico and went to work. Among the *bona fide* rails were a scattering of phonies—men with little or no experience who managed to land jobs south of the Rio Grande with the aid of fake service letters. Among such who hired out on the Mexican Central at Aguascalientes was a tin-horn hogger who went under the name of Eppler. Eppler was responsible for the experience to which I refer.

I was then an engineer. I was called for train No. 21 to leave Aguascalientes at 11 P. M. This was the red-ball manifest, operated between Mexico City and El Paso, Texas. This hot-shot handled only high-class merchandise and perishables, and the dispatchers were on their toes every minute of the time to get her over their districts without delays. Tonnage was held down and the schedule was fast.

Everything went well for the first half of the trip. Weather clear, dry rail and engine steaming free. We arrived

at Zacatecas in good shape at 5 A. M.

Zacatecas sits on top of the mountain by that name. Being about 9000 feet above sea-level, it is the highest point between El Paso and Mexico City. The grade descends in both directions from Zacatecas.

Upon arrival I found the train order signal at stop position. Pulling a few cars past the station, I stopped, and was oiling around when the skipper came up with two train orders. The first gave us a meeting point with an extra at Pimiento, the second a meeting point at a blind siding north. The second order read:

C.&E., all northbound trains:
Rails have been badly oiled between Zacatecas and Calera. Engineers and conductors are instructed to know positively that brakes on their trains are in proper condition before descending the mountain.—J. H. C., Supt.

Inquiring about this unusual order, I learned the following:

Eppler, the phony engineer, had left Calera, heading south. Arriving at Zacatecas he had discovered that the fuel oil hose between the engine and tank had bursted and a heavy stream of oil was running directly on the rail. Fuel oil had recently been adopted and quite a few engines had been converted from coal to oil burners. A two-and-a-half-inch hose connected the oil tank with the burner. This was before the flexible metal joints were introduced. The hose being on the left side, it was suspended above the left hand rail, and this rail had received the full benefit.

Unable to make repairs, Eppler notified the dispatcher that he would have to return to Calera, where a small roundhouse force was maintained. So he was given running orders to Calera, but instead of backing down the mountain he turned his engine on the turntable at Zacatecas and headed back to Calera. This put the bursted hose over the opposite rail, with the result that both rails were thoroughly oiled. This was the reason for the unusual order which I received.

OUR conductor, accompanied by two brakemen and myself, taking a monkey wrench and hammer along, went over all the brakes in that thirty-five-car train and adjusted each one which had less than standard piston travel. We worked for more than an hour in order to make sure our brakes were up to standard.

Then I went back to the engine and, with the help of the fireman, filled the sand dome out of the box reserved for sanding out the flues. After that I tested the sand pipes to convince myself that they were in proper working condition.

These things done, we notified the dispatcher that we were ready, and received a message to proceed.

It was necessary to work steam for only a few car-lengths. Then came an abrupt drop of two per cent, extending to Calera, a distance of seventeen miles. I did not wait for the train to gain the average speed, but as soon as the crummy tipped over the hump I opened the sand lever and pinched them down.

At once the drivers locked and those thirty-five loads came against the tank in an awful bump. I released the drivers with the independent release and again applied the independent brake. The performance was repeated; we began going faster and faster.

I knew where the trouble was. Notwithstanding the sanded rail, at each application of the brakes the wheels locked and skidded down that greasy rail as if on ice skates.

With each revolution the speed in-

creased. The brakemen became excited and doubled up on the hand brakes. This only made matters worse, for by now every wheel on the train was locked and slid merrily around those greasy curves with not enough friction to produce even a spark.

About five miles north of Zacatecas was the first blind siding, El Bote. This was the worse curve on the entire division, being a complete horseshoe of sixteen degrees. Special timetable instructions restricted the speed of passenger trains around that curve to fifteen miles an hour and freight to eleven.

It was on this curve two years before that Charlie Lee had turned over No. 1, the *Aztec Limited,* a fast passenger train, killing approximately two hundred passengers. Lee was given three years in the penitentiary for that wreck, and served them too.

As I approached the dangerous curve I expected it to be my last time in this life, for by now we were running at an alarming rate of speed. And even though I knew that it was useless, I continued to apply the brakes. I saw the sand lever go back and forth with the same heart-breaking results—locked drivers and sliding wheels, with speed increasing as fast as that 1050 tons of boxcars could push me down that blasted mountain.

As I approached El Bote I tried to remember my little prayer, "Now I lay me down to sleep." We were running too fast to even think of jumping, for it would have meant instant death, crushed against giant boulders on the right-of-way.

It is impossible to describe my emotions as I feverishly tried to get the train under control. The conductor was out on top helping the brakemen, but despite our combined efforts we continued a mad rush down the mountain.

I felt a sickening lurch as the old 811 hurled against El Bote curve and we slid around on two wheels. Looking back, I could see the conductor and both brakemen on their bellies hugging the running boards, and every wheel locked tight as the cars skidded around that almost impossible curve. Nothing but the fact that the rails and flanges were so thoroughly greased that no friction resulted kept the wheels from climbing the rails.

THE caboose rounded El Bote without mishap and I breathed a sigh of relief, but my next concern was: "Would the extra, with which we had a meeting at Pimiento, be in the clear?"

At this point began a series of short curves winding first one way then the other, then a straight length of track for about a mile before reaching Pimiento.

By now all of the sand had run out from over the sand pipes and stood in a little pyramid in the center of the sand dome. I did not have the heart to ask my fireman to go out on that lurching boiler to scrape it over. But he had guts, that kid! Without even waiting to be asked he went out through his front window and, holding with a death-like grip, got astride of the boiler, putting his heels against each hand-rail, and with his back toward the front end, began scraping sand over the sand-pipe openings.

The sand did a little good, and once in a while we could feel a perceptible check. But the train would again run into the tank, again increasing our speed. As we rounded the last short curve before reaching the straight length of track approaching Pimiento, I had half of my carcass jammed out of the window to see if that extra was in the clear.

With His Back Toward the Hand-Rail, He Began Scraping Sand Over the Sand-Pipe Opening

When a clear vision permitted my heart sank into my boots, for as we swung around the last curve I saw that poor old extra slipping and sliding as she attempted to get into the clear. Her crew also had experienced that greasy slippery rail and had been more than two hours in getting from Calera to Pimiento, a mere ten miles.

However, they had got most of their train into the siding, only one car and the caboose fouling the main line. But the drivers and pony truck wheels were so saturated with oil that even though they were now on a dry rail in the siding they continued to slip as they tried to clear the main line.

My head was giddy. I guess I was also a little goofy from the strain I had undergone within the past few minutes which seemed like years to me. Grabbing the whistle cord, I gave blast after blast for brakes. I knew it would do no good—for every wheel on the train was then locked and sliding—but I wanted to warn the crew of the extra that we were in serious trouble.

At once they realized our predicament. Each man of the crew on that extra did his bit. As I approached them I could see a brakeman on each side of the track running ahead of their engine throwing handfuls of dirt on the rails as they slipped and barked trying to clear the main line.

Inch by inch they gained momentum as we rushed towards them and finally gained their objective.

We passed the south switch with a speed that seemed impossible to be obtained by a string of rattlers. As we did so, I could see that the crummy still lacked a few feet of being in the clear!

Already in the gangway, I was preparing to join the birds just before striking the caboose. Then all at once that old doghouse gave a leap and got almost in the clear—but not quite, for as we flashed by them the grab-iron on the left side of our engine tank knocked a corner off of the rear caboose steps. We ran through the switch before the

conductor, who was attending it, had time to throw it.

For a second time I breathed a sigh of thankfulness for having passed safely through the shadow of the valley of death, for now my troubles were largely a thing of the past.

This extra in coming up the mountain had used all of their sand supply, as well as more dirt thrown on the rails by the train crew, so the rails were pretty cleaned off. Therefore after passing Pimiento we soon got our train under control and we rolled into Calera coming to an ordinary stop.

But after arrival there, it took several cups of *cafe negra* (black coffee) before I could pull my nerves together sufficiently to continue the run to La Colorado, our northern terminal.

Examination of the drivers and car wheels revealed hundreds of small flat spots, none of them large enough to do any real damage.

After our explanations were made, it is needless to say that we were not censured for exceeding the speed limit around El Bote, nor for making the run from Zacatecas to Calera, seventeen miles, in less than twenty minutes.

How "Slippery Bill" Got His Name

By H. E. WEBSTER

"THE cook told me that you are McCarthy," said the tall, thin stranger. "He won't give me anything to eat unless you give me a job. I'm hungry."

"I want men, not ramrods," the giant foreman replied. His glance swept back to a string of rail laden flatcars. Then he relented. "Feed the bum," he yelled to a fat-jowled cook. The tall newcomer's face darkened, but he clamped his lips on a swift retort.

The place was Summit, Montana, in September, 1890. Already the air was freezing and a few dry snowflakes were sifting down from the gray overhead. Nearby peaks were capped with white. Native trout swarmed in a pool under new ice. That small stream coursed westward and found the Pacific. At the other end of the new side track another small stream finally emptied into the Gulf of Mexico.

A standard engine rattled slowly toward a coupling with the flat cars. There was no one except the engineer on the engine. A slouchy, bewhiskered track worker, wearing a dirty flour sack apron, blocked up the link in the car coupler with a piece of wood. It was not for such as he to guide a link with his hand. Gingerly he lifted the pin in the engine coupler. He dropped it as the couplers clanked.

But the coupling did not make. The blocked up link hung too low. The link bent. The three rail flats bounced and rolled over wood blocks. And those cars had merely to be moved before starting down the mountain grade.

The newcomer, who had started for the cook car, stopped when he heard McCarthy's roar.

"Stop 'em! Block 'em again," McCarthy yelled. The worker shambled after them, tried to block wheels with a piece of plank. But he was flipped aside as the board was crushed, and the cars moved on. McCarthy's face blotched with purple, but there was nothing he could do.

"Do I get a job if I stop those cars," the stranger demanded. "Talk quick! Ten seconds will be too late."

"Stop those cars and you get a job with double wages for a year," McCarthy rapped out. The man leaped away.

Meantime, the flats had rattled along toward the main line. McCarthy had lined up the stub switch himself. The slim man picked up a link as he ran. His signal to Engineer Buckley was a command. He saw he could not run and catch the cars. He

"Stop Those Cars and You Get a Job With Double Wages for a Year!"

stopped, gave Buckley a vicious highball.

Buckley shut his eyes. No one could step onto a footboard at that speed. McCarthy gave up hope. Those cars of rails would hit his rail-laying outfit a scant two miles west—would tie up the work for days.

But somehow the man did step on, and Buckley said that his signals were like curses. He yanked the throttle wide.

HOW the thin stranger removed the bent link while riding the footboard of the pitching, careening locomotive can never be known. Buckley says that the track was like a washboard. But somehow it was done; the pin dropped through the new link and Buckley plugged the engine to a stop just in time. The floater fired the engine back to Summit, to McCarthy, who stood at the cook car door with a big jug and tin cups. After a big drink he said: "You're wan hell of a good little man."

Buckley said that the man was famished, yet he ate with deliberation and good manners. McCarthy watched him, seemingly astonished that such a slim form hid such strength and vitality.

"I've promised you a job," McCarthy said. "What do you do best?"

"Anything. Do you need a conductor?"

"It's a tough job you're asking for. This is a mountain. The brakes are poor—or all gone. The equipment is worn out; but 'tis the best Jim Hill can do, yet. Give him a little time an' he'll talk the money away from the mint, so he will. But I'll try you an' you can start after dinner. Your name?"

"Bill."

"Bill what?"

"Bill —— Morrison." McCarthy jotted down the name while he mused. "H-m-m! There's a picture in that Denver paper that looks like you. But the fellow's name ain't Bill—or Morrison."

Morrison glanced at the paper, picked it up, folded it and stuffed it into the kitchen range. McCarthy's eyes twinkled.

"And now," he said, "since you say that you're a railroad man, you and I will

switch out the empties and get them lined up for the crews to take east when they bring my men back tonight."

"What was the holiday for?" Morrison asked.

"The pay day spree. Half the gang go out to Havre's half acre of hell, or to Great Falls, an' even to Butte, every two months, when I pay. They tie up the job for a week. I told the whole crew to go this time and get it over with."

"Unnecessary," said Morrison.

"Why?"

"Give them what they want here. Build a town of your own, and make it tough. Send word to the wise guys to send gamblers, girls and whisky. If you do that you can make your own rules and keep them from getting too tough with your men. Let them give the men limited credit and the men will stay."

McCarthy's face beamed. "A honka tonk special will be coming in a week. We'll call our town McCarthyville. I know just the spot for it. I saw it when I first tramped down the pass with Johnny Stevens."

And so, in a wide mountain valley, on the bank of a crystal clear stream named Bear Creek, a crew of Great Northern men cut logs and helped build McCarthyville. Before the mountain blizzards stopped work on the new railroad the work was done and through the winter the men threaded their way through a deep canyon to their own hell town where tin pan pianos tinkled, "ladies" suffered themselves to be waltzed over the puncheon floor, and whisky with a cayenne pepper wallop was doled out with meagre credit.

It is impossible to get anything like a true history of the short lived town. It is impossible to separate the wheat from the chaff—the truth from the distorted legend. Charley Buckley, for whom I fired in 1905, told me a little, but he said he seldom went there—that the place was too tough. He said that there was quite a graveyard, but that it was not plotted and the graves were unmarked. From an incident heard at Essex I believe that to be a fact. Of that, later.

AMONG the few men who stayed, or came back later, was an odd specimen named Murphy. This man got a job watching track and he may yet be alive, though I believe he has passed on. We engineers on Essex hill frequently tried to draw him out, with no success. Either he couldn't or wouldn't talk.

He patrolled track during the worst storms known to North United States. A returning helper engine hit him one raging winter night. The snow plow tossed him aside. The crew sorrowfully dug him out and got cursed to hell-an-gone.

Later, someone criminally inclined must have learned of a peculiar habit he had. That person held him up and took a soiled roll of greenbacks that he kept with him to finger and gloat over. Murphy laid his three thousand dollar loss to another watchman who also had been with him in McCarthyville days. He had him arrested, but nothing was proved.

There was another old-timer who patrolled track farther up the mountain. His name was Phil Gifer. Gifer squatted on a claim that took in the old site of McCarthyville.

He had quite a herd of cattle, some chickens, and a few hogs. Gifer, his chickens, hogs, a surly mongrel dog, and a tame porcupine, occupied the same rooms. His magnificent obsession was a fabulous mine that he claimed to have found, left, and could not find again. It was only when he was drunk that he would ever talk of McCarthyville.

On one trip down to Essex to get his groceries at Tom Shields' store, and a jug of whisky that someone brought out for him from Jim Matthews' saloon at Whitefish. Gifer hit the jug too frequently and got drunk before going home. It developed into a crying jag.

"I was digging a post hole when it happened," he blubbered, over and over. Finally someone asked him what happened.

"I was digging a post hole an' I dug down through Davy Ness. Davy was a right good lookin' cuss an' Sam Carling killed him 'cause he was jealous. Bill, you

remember him," Gifer turned to Bill Morrison, who was there.

"But how'd you know it was Ness?" someone asked.

"Huh, that's where Bill comes in. Bill knocked out two teeth when he was brakin' for him, an' he had a crooked tooth below. That's what the skull had that I dug up. Come to think of it, his grin looked damn nacheral, too."

AND now for Slippery Bill Morrison and how he got his name.

Bill was a singularly silent man. When he and Buckley returned to Summit after catching the runaway cars, McCarthy was all Irish elation.

"You're a rale man," he chortled. "You don't look it, but you are. If you was only a little bigger I'd make you a straw boss."

"Huh! 'Ramrod! Bum?' " Bill snorted. "Now I'm a 'rale man.' You promised me a job, but you can't make a damn fool foreman out of me. I'm not Irish and I'm proud of that." McCarthy scowled, then roared. Whatever Morrison said after that was always all right with McCarthy. Theirs was strange if fast friendship.

It was during the winter, a winter so severe that men worked only in tunnels at times, that Morrison spent much time at the hell town, in the arcade gambling "palace." Wine and women then held no place in his life. Later he was different. Buckley says that he believed that Morrison confided in McCarthy and told him all about himself—and Buckley believed that there was plenty to tell. One day McCarthy called Buckley and a dozen more rails to the office. Morrison was there.

"Those so and so's at the Arcade are cold-decking me," Morrison explained. "They took me for a cold thousand before I got wise. Last night Sol Coverly dealt me four tens. He and Big Bill Sanger always sit opposite to each other. No one stayed with the ante before it got to me, and I tossed in my hand. Sanger and Coverly nearly blew up. Coverly choked on a glass of whisky and that fellow could drink oil of vitriol. Yes, sir, I know they've been high-timing me, but I can't do a thing without help.

"Could you if you had help?" McCarthy asked.

"I'll show you," said Morrison. He did. He dealt cards from top and bottom. He grabbed up and riffled cards with unbelievable rapidity and ease—and dealt unbelievable hands, as he chose. Some days later we railroad men wended our way to the Arcade. McCarthy and Morrison were to play and the rails were to stick around and see that no one interfered. So the game began.

"What's the limit?" Coverly asked when he, Morrison, Sanger and McCarthy sat at the round table.

"Not any," McCarthy growled. The gamblers looked up quickly. Then tried to hide their elation. Buckley told me that Coverly looked vulturous when off his guard for an instant, that he was the most contemptible man in Montana. McCarthy continued coldly: "We play table stakes and you will match our piles dollar for dollar."

There was forty thousand dollars in gold on the big table when it was done, and the game began. Where all that money came from I don't know.

FOR hours there was little change in the piles, although Morrison won slowly from the first. Not a cent was waged on the other layouts. The gamblers stood on tables to watch the big game. Finally Morrison raked in a large pot. He laid his cards face up—aces and eights, the dead man's hand. Sanger had stood pat. So had Morrison. Sanger flushed. As yet the game was square.

Then, to the trainmen bodyguard, incredible things happened. Where before they had seen Morrison bet big money on a shoestring, he now laid down straights, flushes, even four of a kind. It was some after midnight when Coverly leaped up. His face worked with fury.

"You—you—you—" he began.

"Don't finish that," Morrison interrupted, mildly. But he wasn't so mild in-

wardly. "Now see here," he said as he laid his hand face up on the table. He put down four jacks and a king. There were just two hands in the deck that would have beat the hand; they were playing four aces as best hand. Morrison again:

"I'll bet you a thousand," he said slowly, evenly, *"that your hand beats mine!"*

The challenge was an insult. Sweat drops oozed from Coverley's swarthy if pasty forehead—but he did not bet. The game went on and it was four in the icy morning when the big break came.

Sanger opened a jackpot. It was he who had dealt the cards. Surprisingly, McCarthy boosted it. Coverly hesitated, then he doubled the pot. And Morrison stayed.

Then the betting went 'round and 'round until Morrison shoved in the rest of his stack. McCarthy had dropped out after the second bet. When the gamblers met his last raise, Morrison dropped his cards on the table, cupped his hands around the huge pot and pulled it in. Coverly and Sanger roared.

"Since when did three sixes beat four aces?" Sanger demanded. Both Coverly and Sanger had laid their hands face up. Both of them now stared stupidly at Morrison's hands, four aces in each.

"You dealt the cards," Morrison reminded Sanger. "Someone got their wires crossed. My pot. Any objections?"

And because a dozen astonished railroad man stood with hands hanging over pistol butts, Bill did keep the pot and the men guarded him back to camp. Where, a scant hour later, Morrison raised up to find himself quickly snaked from his bunk.

"Keep still," he was warned, "where's our money?"

"Your money?" Bill growled.

"Our money. Get it. We've doped it out. You run in a cold deck."

"You dealt," said Bill.

"And you cut, and shifted when you cut."

At that minute Buckley, who slept in the next pine partitioned room, opened the door. Men shouted and footsteps creaked.

"Have they got it?" McCarthy roared.

Sanger's and Coverley's dejected looks told the story. McCarthy sent them out the next day.

"And now, Bill," McCarthy told him when the train was ready to leave, "give me your pile and I'll put it in the strong box and have it banked for you in Great Falls." Then he and Buckley watched in amazement when Morrison went into Buckley's quarters. A barrel of black oil and another of tallow stood near the big pot bellied stove. Unhesitatingly Morrison bared his right arm, plunged it down into the black oil and came up with a buckskin poke. He did that many times.

"Well I'll be damned!" McCarthy said. "You're sure a slippery cuss, Bill!"

THUS it was that Bill Morrison quit the Great Northern, moved to the Arcade and ran the poker game until the railroad moved on to balmier breezes. And when the hell-town closed up Bill opened a little saloon at Summit. He finally closed that, too, but he stayed on. Stayed until he died a scant two years ago.

During the summer months he loafed around and rode the helper engines down to Essex again. In the winter he ran his trap line along the river and trapped silver cats. He met every passenger train that stopped and bought a paper. He talked politics with anyone who would talk back. He wore a long tailed coat. It was fine broadcloth, but rusty with age. His hat, with its semi-conical crown, was of the vintage of the '60's. Every year for many years the Great Northern sent him a formal notice to move his log cabin off their right-of-way. Bill didn't.

That cabin had a puncheon floor. The roof was of hollowed out logs, with other logs, peeked side up, capping the cracks. Three times Bill had to saw off his door because the base logs rotted and the cabin settled. In one end of the shack was a tarnished roulette wheel and other gambling layouts. On the dust covered back bar the bottles still stood in forlorn precision. The old brass foot rail was green with verdigris, the bar rough and warped, the mirror cracked and streaked; but Bill's

living quarters were neat and clean. A few well chosen classics, worn and thumbed, stood on a marble topped stand of ebony —an odd old piece of furniture. Bill quoted Shakespeare and his comments and comparisons were biting and bitter. The mystery of a brilliant, if misguided, man will never be solved, but his loyalty to his friends is remembered. It would not be complete without later anecdotes.

The Great Northern was double tracking Essex hill. Bill watched the operations, and his comments were caustic when progress did not suit him. A new engineer came to run a work train engine on the contractors unit that worked at Highgate. Bill heard the engineer say that it was a likely place to find a bear in the big gulch on the mountain, across Bear Creek valley. After hearing that remark Bill got an old pair of field glasses and watched the gulch.

It is indeed a big ravine. Scores of spring snow slides have swept off the timber and left it in tangled piles of splintered debris. After a day or so of watching the huge log jams Bill said to the engineer: "If I had my old 45-60, and wasn't so crippled with rheumatism I'd go over to the gulch and get me a grizzly. I saw the granddaddy of all of them pawing a rotten log for ants."

So the engineer listened and learned a lot about bears. And the next morning, bright and early, after getting the watchman to fire and arranging for the fireman to run the engine for an hour, the engineer crossed the valley and a few minutes later the railroad men heard a shot. The hunting hoghead came back on the dead run.

"I got 'im! I got a b'ar an' he's big as a horse," was his glad tidings. There were tolerant looks, grinning asides, even open raillery. But they didn't stand up against the engineer's earnest assurance. Some of the crew went back with him. It took several more to get the grizzly to camp.

"Now wouldn't that untie the devil's topnot," Bill confided of some cronies that night. I jobbed that tenderfoot hoghead. I never yet have seen a live bear in the woods, and I've been around her some time. Now that throttle yanking nimrod's gone and killed my dream bear. You know what I did? I took the lens of my field glasses out and sketched in a bear. I had the glasses aimed at a big log pile and had the hoghead look!"

One day a noted journalist came out our way to see Bill.

"Are you the gentleman they call Slippery Bill?" the writer asked.

"Mister," Bill countered, "will they pay you big money to write about me?"

"Why, yes, I am well paid for what I write," the scribbler admitted.

"Well," said Bill, "How much do you want for minding your own business?"

WHAT TO DO WHEN YOU HAVE A COLD

If you're nursing a cold —*see a doctor!* Curing a cold is the doctor's business. But the doctor himself will tell you that a regular movement of the bowels will help to shorten the duration of a cold. Also, that it will do much to make you *less susceptible* to colds.

So keep your bowels open! And when Nature needs help—use Ex-Lax! Because of its thorough and effective action, Ex-Lax helps keep the body free of accumulated intestinal wastes. And because it is so gentle in action, Ex-Lax won't shock your eliminative system or cause stomach pains.

In its new *scientifically improved* form, Ex-Lax is better than ever! It tastes better —with a smoother, richer chocolate flavor. It acts better, too—it's more gentle, yet at the same time more effective. And Ex-Lax is as good for children as it is for grown-ups.

Ask for Ex-Lax, the Original Chocolated Laxative, at your druggist's. Only 10c and 25c a box. Get a box today!

Now improved—better than ever!

EX-LAX

THE ORIGINAL CHOCOLATED LAXATIVE

"Ghosts" on the Rail

By E. A. WAMSLEY

WHEN I was a boy in Illinois in the early eighties, when the engines of that day cast a yellow light ahead of their pilots for perhaps fifty to a hundred feet, my dad was a conductor on the Illinois Central.

One night he came in off his run and told us about his engineer seeing a woman dance along just ahead of the engine on the track as they came down the hill from Sublette, Ill. He and his fireman were frightened and a wild call for brakes caused the brakemen to take their clubs in hand and get busy. Both the enginemen waited for dad to come up to the engine. Then all three walked ahead, but saw nothing. Dad looked back at the headlight and then climbed onto the pilot and pulled off a huge maple leaf. And the ghost was laid. That hogger was kidded about it until he quit and left the country.

Years later I was on No. 14, headed south down through San Miguel Canyon on the Mexican National Railway. The canyon make a square turn to the right about halfway through it. (They have since built a tunnel, I understand, that does away with that sharp curve.) I stood in the engine cab close to the hogger. He suddenly grabbed the whistle cord and blew for the binders and we all got busy.

It was a dark, squally night, windy and cloudy. Ahead of us on the granite wall of the canyon was a flickering, wavering light undoubtedly cast by a headlight and apparently from a northbound train coming from the south end of the canyon. We blew for a siding. The switch and siding ground and walked ahead.

Across the canyon from us was a great slab of smooth black granite, and the light we saw was reflected from its wet surface. When we passed that light after starting up again the light below disappeared.

One June morning I came out of Mojave headed for Barstow. I was riding the engine and standing alongside the engineer. Right ahead of us was a lake, not a hundred feet ahead of our pilot. Rippling little waves danced on the water and tules waved gently at the edge of the lake. We sailed right at it but never reaching it, for miles and miles.

A whistle post slid by, and the hogger blew for a siding. The switch and siding came up out of the water toward us; we crashed over the frogs and whipped by a little telegraph office. The heat-crazed fireboy cursed and urged the hoghead to get close enough so he could take a dive into the lake, but it was only a mirage.

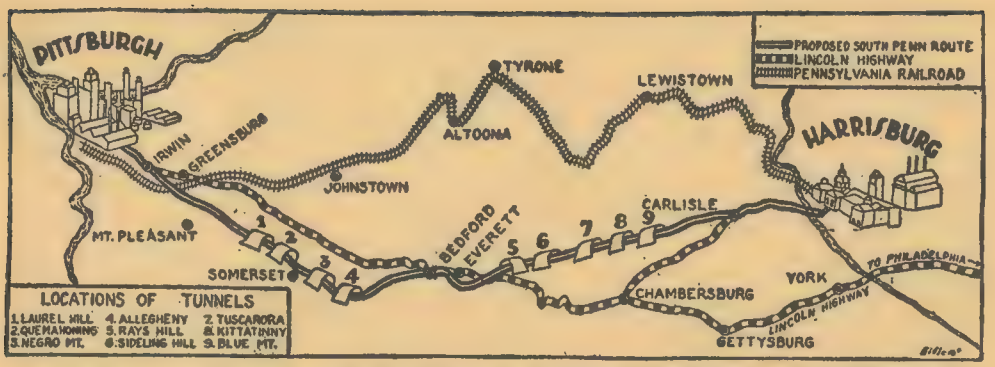
Another time on Chirimoya Hill, on the Mexican National, I stood in the cab of the 48, a hog that pulled anything you tied on behind her. Dan O'Brien, my engineer held his left hand grasping the throttle as he peered ahead into the black night. It was raining and we had a heavy train.

Suddenly Dan shoved the throttle home and gave a yelp. "Holy Mother," he exclaimed. "Wamsley, open that throttle!"

I did so. Something seemed to hit my elbow and I shoved it in again. Dan was white as a sheet. By that time we were stalled and doubled over the hill into San Felipe. A ghost? Make your own guess.

I know I'm being called all kinds of a liar by now—but it really happened. A month later when Dan was called to go down and take a helper run at Chirimoya, he quit rather than take the job.

One funny explanation was given me for this by Doc Dysart, the company doctor for the Central. Chirimoya Hill is a mass of iron, practically. There was much electricity loose that night; in fact, it was just one crash of thunder after another, and Doc said it made us shove ahead on the throttle.



The Old Abandoned South Penn Railroad, Built by William H. Vanderbilt but Never Completed and Never Operated, Is Soon to Be Rebuilt into a Motor Highway on Which Busses and Trucks Will Be Forced to Pay Toll, Thus, In Effect, Maintaining Their Own Roadbeds as Railroads Do. (Pittsburgh Motor Club Map)

"Vanderbilt's Folly"

THE ten-million-dollar railroad which William H. Vanderbilt thrust through the mountains and valleys of southern Pennsylvania, simply and solely as a counter-offensive against invasion of his Hudson River territory by the rival Morgan interests, and which, having won the battle, he abandoned, is known to history as "Vanderbilt's Folly."

It will be known to future generations as something quite different. For this old abandoned railroad is now to be cleared of a half century's underbrush and used as foundation for a super-toll motor highway from Harrisburg to Pittsburgh—first link in a projected transcontinental chain.

The story really begins a hundred years ago. In 1837 the State of Pennsylvania, at that time subsidizing construction of railroads and canals, sent out surveyors to trace a new railroad from Chambersburg, in the Cumberland Valley, to Pittsburgh, 125 miles to the west. In the party was John Augustus Roebling, engineering apprentice destined later to construct famous suspension bridges at Cincinnati and Niagara and to be father of the man who built Brooklyn Bridge.

A second survey was made by the state in 1844. Ten years later private interests re-surveyed the route and obtained a charter for the Duncannon, Landisburg & Broad Top Railroad.

This venture was successively known during the next quarter century as the Sherman's Valley & Broad Top, the Pennsylvania & Pacific, the Harrisburg & Western, and finally the Southern Pennsylvania Railroad. It never laid a rail nor turned a wheel; already more than $300,000 had been spent on it but still it lived only on paper, an idea awaiting concrete expression.

Suddenly the phantom road of many names became a real weapon in a dramatic struggle between two rival transportation giants, J. P. Morgan and William H. Vanderbilt, son of the old Commodore.

In 1881, when railroads were ex-

panding lustily and without restraint, Vanderbilt's New York Central declared war on Morgan's Pennsylvania line. A factor in this was the Pennsy's purchase of the West Shore road in New York State, built to kill the Central's monopoly of the Hudson Valley. Vanderbilt retaliated by building 164 miles of double-track grade through the mountains between Harrisburg and Pittsburgh, in the PRR domain.

This belligerent gesture cost him $10,000,000. It was, perhaps, the costliest railroad war in history. But "Billy," as old Cornelius used to call his son, was not worried. He had plenty to spend. Inheriting $105,000,000 in January, 1877, he had almost doubled it within seven years and, according to the *New York Times,* had boasted:

"I am the richest man in the world. In England the Duke of Westminster is said to be worth the equivalent of two hundred million dollars, but his wealth is mostly in houses and lands and does not pay two percent."

WILLIAM H. VANDERBILT was fifty-six when his father died and he assumed control of the NYC. Until 1864 he had been occupied in truck farming on Staten Island (now part of New York City) in a small two-story house. The Commodore had decreed this form of exile because he thought the fellow was too phlegmatic and dull to amount to anything. But even on his farm Billy began to climb the ladder of success by plodding, by driving his farm hands, and by his shrewd ability to bargain.

William H. Vanderbilt (Center) Giving His Cronies a Few Tips on the Stock Market

At length his father, who owned the Central, put William H. into railroading by giving him an executive position on the New York & Harlem line. Biographers of the Vanderbilt family say it was painful to watch Billy's daily struggle to grasp the minute details of railroad management. From his father they say he learned how to manipulate stocks, common contracts and legislatures, and how to outwit competitors and extend his sway.

The age of consolidations was just beginning, and the old Commodore had set an example in merging roads. The various magnates were engaged in cutthroat competition with each other. Jay Gould, for instance, had come very near bankrupting the Commodore and even now was laying in wait for Billy.

A few month's after Cornelius Vanderbilt's death his son was plunged into the now famous strike of 1877. At this time Billy won the respect and loyalty of his employes by conciliatory measures and by restoring the old wages which had been cut. Even at that, because he owned four hundred thousand shares of New York Central stock he was assailed by loud-mouthed demagogues; so, in 1879 he sold half of it.

The sale was made through J. P. Morgan, largely to British interests. Billy re-invested his $35,000,000 proceeds in United States Government bonds, which paid him well. After that he set about getting rid of his chief competitor, the West Shore Railroad on the western bank of the Hudson River. This he did by lowering rates on the Central sharply, which took away most of the West Shore's freight traffic and gradually forced the road into bankruptcy so he could buy it for a song.

Meanwhile, Vanderbilt decided to cut into the Pennsy's monopoly by building a rival line. As the new route was more direct, it is easy to see how the South Penn could have hurt the PRR seriously. The distances by rail in those days were:

New York to Pittsburgh: via PRR, 445 miles; via South Penn and its connections, 396.

Philadelphia to Pittsburgh: via PRR, 354 miles; via South Penn, 327.

Harrisburg to Pittsburgh: via PRR, 249 miles; via South Penn, 215.

Vanderbilt allied himself with the Philadelphia & Reading, another rival of the Pennsy, acquiring 82,000 shares of Reading stock and a large section of the state's anthracite coal mines. But, like Jay Gould's son years later, he met stern opposition from the well-entrenched PRR and eventually was forced to compromise.

He first sent in three hundred engineers, who made a topographical survey covering a thousand square miles and ran five thousand miles of location lines. This work took two years to finish and is still considered the most complete railroad survey in American history.

Thousands of laborers followed the engineers, and villages to house them mushroomed into being all along the 208-mile route. Tunnels pierced the hills. Bridge pillars of limestone thrust up from the rivers. And crude wooden forerunners of the modern steam shovel muzzled into their banks.

By November, 1885, the railroad was nearly sixty percent completed. Four and a half miles of tunnels had been driven, more than five million cubic yards of grading accomplished.

And then—Vanderbilt and Morgan signed a truce. Each agreed to get out of the other's territory. Billy took over the West Shore line which he had bankrupted, while Pennsy interests ac-

"Billy" Vanderbilt, President of the New York Central (1877-1885), Who Built a Ten-Million Dollar Railroad That Never Turned a Wheel

quired "Vanderbilt's Folly," the costly South Penn.

The Reading was left holding the bag. For J. P. stepped in as Billy's fiscal agent and together they sold the South Penn to the Pennsy without consulting the wishes of Vanderbilt's ally. Reading officials denounced the deal angrily as a case of double-crossing.

VANDERBILT'S next important move was to buy a controlling interest in the four thousand-mile Chicago & North Western, which gave his New York Central a much-desired entry to Chicago and to the whole Northwestern section of the country as well.

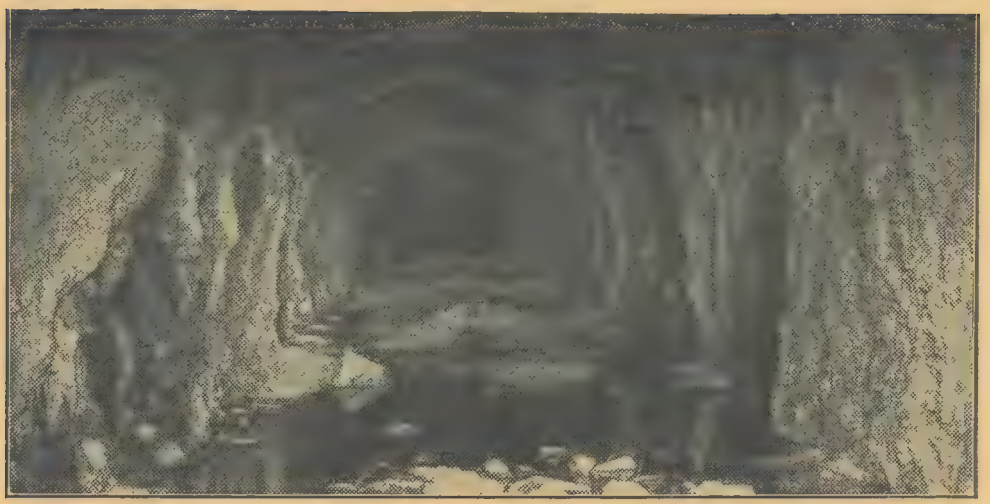
The plodding farmer from Staten Island had come up in the world, even beyond his wealthy father's dreams. He had two elegant brownstone mansions built in New York City—one for himself, the other for his daughter—on Fifth Avenue at Fifty-first and Fifty-second streets. These he furnished with unprecedented lavishness. For eighteen months more than six hundred artisans were employed on the interior, including stone workers which were brought over from Europe for that purpose.

In one of those mansions William H. Vanderbilt suddenly fell dead at his desk, a victim of apoplexy. The end came December 8th, 1885, while he was discussing plans for further expansion of his railroad empire with William Garrett, president of the B&O. Mr. Garrett admitted later that Vanderbilt's plans for the South Penn had embraced NYC entry into Baltimore, Md., as well as into Pittsburgh.

By a strange coincidence, a great railroad strike occurred a few months after William's death, similar to the one which had come a few months after his father's death.

Today William H. Vanderbilt is remembered chiefly by the general public for his oft-quoted but misunderstood expression, "The public be damned!" This remark, according to the best authorities, was merely a gesture of impatience he used in dismissing a persistent reporter, and did not indicate the arrogance which some people attributed to it.

THE end of operations on the South Penn came with the suddenness of a turned-out light. Construction officials were summarily dismissed. Workers laid down their tools at night, never to pick them up again. The roadbed and tunnels which had cost $10,000,000 and twenty-seven lives to build were abandoned to the elements. In 1890 "Vanderbilt's Folly" was sold under the hammer of the sheriff of



This Photo and Those on Page 50 from Penna. Dept. of Highways

Looking Westward into Quemahoning Tunnel, Somerset County, Pa., Originally Dug in Connection with the South Penn Railroad but Now Part of a Great WPA Highway Project

Fulton County. For years later it became the Fulton, Bedford & Somerset Railroad, controlled by the B&O. This $10,000,000 road was carried on the books of the B&O invoiced at one dollar! An annual report of the FB&S was made regularly to the Interstate Commerce Commission. Yes, the South Penn was dead, and for fifty years weeds grew undisturbed over its grave.

Then came the idea of reviving it in the form of a modern motor road. This bold plan was conceived by the Pennsylvania State Planning Board in 1934, at a time when the Federal Government was endeavoring to find useful work for the unemployed.

There were strong arguments for the revival. Completion of the South Penn's nine ancient tunnels would give motorcar operators greater safety and protection from mountain storms and fog than existing roads could afford. The old roadbed's easy grades would be ideal for heavy commercial trucks. It meant the saving of several hours in running time between Philadelphia and Pittsburgh.

Besides, there was a military argument. A road of that kind could, if necessary, be a defense asset, facilitating the movement of munitions and equipment. The cost of this project would be $50,000,000, about the same as the first cost of a battleship. And the road could be expected to pay for its construction and upkeep by tolls, whereas a battleship costs about $2,000,000 a year to maintain.

Convinced by these arguments, the Pennsylvania Legislature authorized its state highway department to cooperate with the Works Progress Administration in surveying the right-of-way.

The project got under way in January, 1936. The old route was divided into ten-mile sections, and a half-a-dozen surveyors were assigned to each. Laborers started draining the tunnels and clearing debris from the grades. This activity continued for thirteen months. Federal funds for this project, practically all of which went for labor, amounted to $59,598. The sponsor's contribution was $48,660.

East Portal of Blue Mt. Tunnel in Franklin County, Pa., a Remnant of the South Penn Fiasco, Which Is Included in the Modern WPA Plans for an All-Weather Super-Highway across the State

In May, 1937, a supplemental project was approved to complete the survey and preliminary work. It provided $45,700 additional in federal funds and $51,000 from the Pennsylvania Highway Department. The preliminary survey is now practically complete.

All reports indicate that William Vanderbilt's workmen of fifty years ago did their job well. The tunnel masonry is sound. The arches are well preserved. Drainage culverts, embankments and grades are still strong and dependable. Their value to the highway is estimated at several million dollars.

The survey further reveals that the old roadbed will help to provide:

1. A maximum grade of three percent, and a maximum curvature of six degrees with a radius of 995 feet.
2. By-passes around all cities and larger towns.
3. Elimination of four railroad and twenty-six highway grade-crossings, with safety ramps for feeder roads.
4. Grades located above the high-water marks of previous floods.
5. Utilization of southern and western slopes where possible, to avoid snow and ice.

ENCOURAGED by these favorable reports, Pennsylvania's Legislature passed an act, signed May 21,

South Penn Roadbed in Westmoreland County, Pa., Which Will Be Used by Motorists

1937, creating a turnpike commission to build and operate a $50,000,000 four-lane toll highway over this route, from a point on Route 11 fifteen miles west of Harrisburg, across the Cumberland Valley and through the Alleghenies, to a point on the Lincoln Highway twenty miles east of Pittsburgh, or from Middlesex in Cumberland County to Irwin in Westmoreland.

The commission is authorized to float turnpike revenue bonds to finance construction. These bonds will not be a debt against the state; they will obligate only the moneys collected in tolls.

It is estimated that the minimum daily traffic will be 5000 vehicles, assuring an annual income of some $5,000,000. The capacity of the road will be almost without limit. And the authorizing act provides that when the road is paid for and the bonds retired, it shall become part of, and be maintained by, the state's highway department, free of tolls.

The mountain turnpike will be America's first major experiment with a toll highway. More than seven miles of the route's 164½ will be through tunnels—37,389 lineal feet, to be exact. These tunnels run through solid rock, and are from twenty-six to twenty-eight feet wide. They will be ventilated where necessary. Road tolls will be collected at their entrances.

The road's elevation ranges from 400 feet above sea level, near Harrisburg, to 2400 feet at the Laurel Hill tunnel. Cars crossing Pennsylvania's southern mountains over present routes must climb an accumulated vertical height of 13,880 feet, up nine percent grades. On the new road they will have to climb only 3900 feet, less than a third as much. Four traffic lanes will

These Susquehanna Bridge Piers—Relics of "Vanderbilt's Folly"—Will Probably Never Be Used, Not Even in the New Motor Highway

make for speed. Three quarters of the road's total length, or 125 miles, are free from curves. One stretch runs for forty miles straight as a shaft of light. Billy Vanderbilt's surveyors were men who knew their business. His "Folly" was wisely charted.

Highway accidents claimed 2411 lives in Pennsylvania during 1936. Narrow roads, dangerous curves, one-way bridges and grade-crossings were often responsible. Such common highway hazards will be absent from the tunnel road.

"More jobs!" That is the cry today. And the building of public roads has proved one of the most effective methods of providing employment. WPA figures show that construction of Pennsylvania's $50,000,000 road will provide 18,980 man years of direct, and 32,365 man years of indirect, employment. That means a total of 51,345 men working at good wages for a year.

Railroad fans will rejoice to learn that commercial vehicles would be required to use the toll roads, thereby relieving nearby highways of congestion and expensive upkeep. This tends to put highway transportation on the same competitive plane with the iron trail—by forcing trucks and busses, in effect, to maintain their own roadbeds.

Entrance to, and exit from, the roads would be through toll gates. There tickets would be sold as for a railroad trip, and there they would be collected at the journey's end, as the traveler left the road.

In short, "Vanderbilt's Folly" is going to be converted into a great motor highway, and the railroad's chief rivals —the busses and trucks—will help to pay for it.

Built but Never Operated

By JACK C. STATZELL

A MILLION dollars is a lot of money in anybody's language, especially when used to build a railroad that never turned a wheel and never yielded a nickel's worth of revenue to anyone.

"How come?" you ask. Well, in 1928 or 1929 the people of Los Angeles County, California, floated a bond issue to build a flood-control dam in San Gabriel Canyon. The contract was let immediately and the work got under way. But the contractors pulled their first boner by choosing a site miles from where they could get adequate filling and other material; so they had to lay a railroad to haul the material.

A 12-mile line was built from the dam site to Azusa, which connects with the Pacific Electric and the Santa Fe. Any amount of rock was available at Azusa—but at what a price! The staggering figure was $2.95 per cubic yard delivered. No, friends, it was just ordinary rock, not gold ore. That was boner number two.

The railroad was pretty good but a little steep—two per cent in spots—and the kinks (sometimes called curves) were a bit too sharp, and there was a 300-foot tunnel. The rolling stock consisted of three Moguls, an unknown number of dump cars, and miscellaneous equipment. All of the latter, you understand, were not in-

cluded in the originally mentioned million dollars' worth of railroad; they were just accessories, so to speak.

Well, the happy day arrived. The last spike had been driven, and things were about ready to buzz when "the powers that be" changed their minds. They decided to cover up the tracks through the canyon with asphalt and make a highway of it, thus using motor trucks instead of railroad equipment to haul the material. No one seems to know exactly why, but they did.

This million dollars' worth of railroad isn't much to look at now. Faint outlines of the rails may still be seen under the asphalt surface. The switch targets stand dejectedly beside the highway over which automobiles now whiz. The one tunnel is slowly caving in. Little rivulets of soft earth and sand trickle endlessly down through the rotting timbers, gradually filling the bore. Grass and weeds grow on the right-of-way. Trees already as large as your arm are shooting up between the ties.

Now, here's the cutback. Instead of completing the flood-control dam, the contractors pulled the pin and moved out. Probably that rock at $2.95 per was the fatal straw. Naturally the citizenry were outraged and brought suit. After years of bitter litigation judgment was returned in their favor for about $700,000—a great deal less than the cost of the railroad.

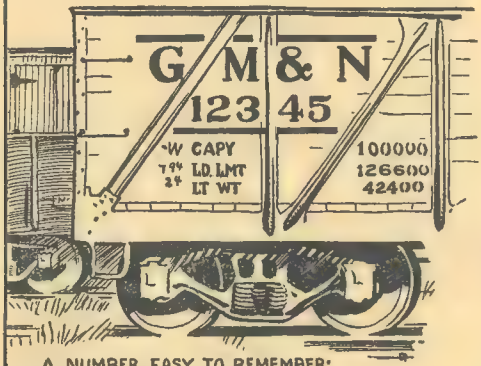
Another dam is now being built to keep Old Man River where he belongs. This time the engineers have chosen a site where plenty of filling is available at low cost. As for the railroad—well, it is being junked. By the time this is printed the tracks will have been sold, ripped up, and on their way, presumably to Japan. No one seems to know what became of the rolling stock. In fact, the million-dollar pike was just another exploded dream.

A "No Trespassing" Sign Adorns the Mouth of This 300-Foot Tunnel on the Abandoned Azusa Line

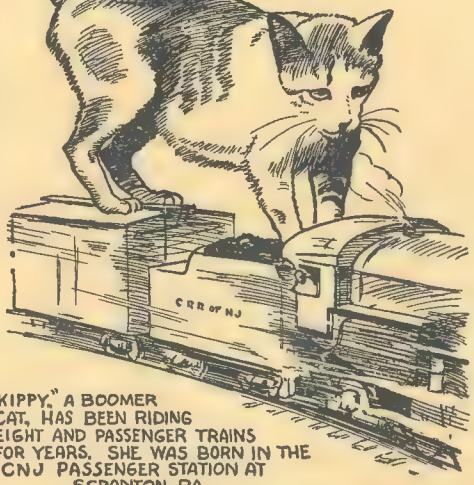
This advertisement is not intended to offer alcoholic beverages for sale or delivery in any state or community where the advertising, sale or use thereof is unlawful.

ALONG THE

MAINE CENTRAL ENGINE NO. 462 IS A 4-6-2 TYPE
(From photo by Robert Baker, Brunswick, Me.)

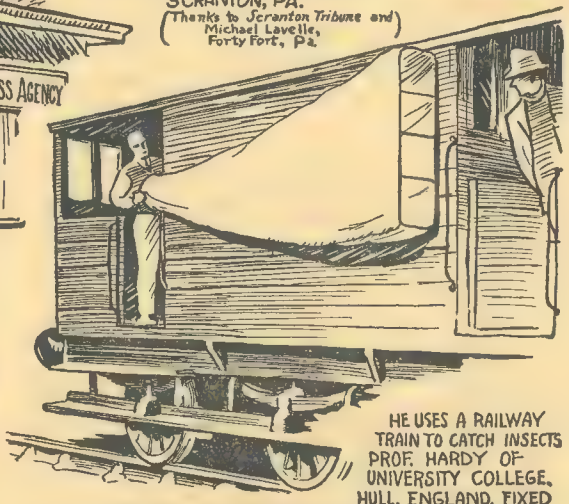


A NUMBER EASY TO REMEMBER: GONDOLA CAR NO. 12345 OF THE GULF, MOBILE & NORTHERN
(From photo by Charles Harrington, 600 Walnut St., Hattiesburg, Miss.)



"SKIPPY," A BOOMER CAT, HAS BEEN RIDING FREIGHT AND PASSENGER TRAINS FOR YEARS. SHE WAS BORN IN THE CNJ PASSENGER STATION AT SCRANTON, PA.
(Thanks to *Scranton Tribune* and Michael Lavelle, Forty Fort, Pa.)

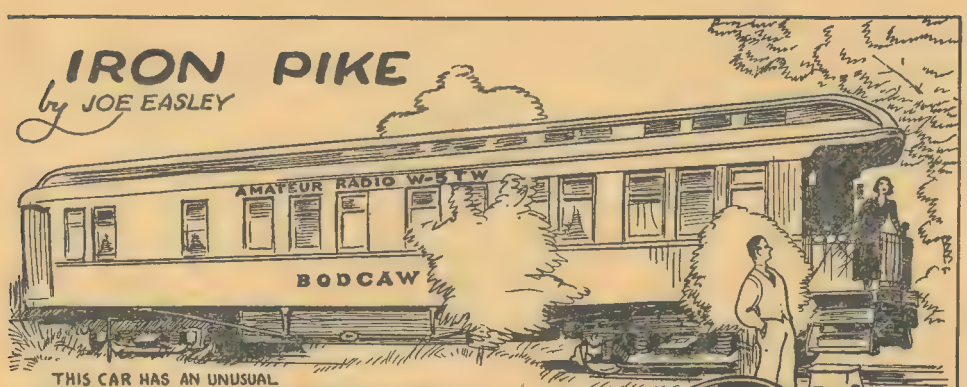
AUBURN, N.H., ON THE B&M, CLAIMS TO HAVE AMERICA'S SMALLEST RAILROAD STATION AND R.E.A. OFFICE
(Courtesy of James Crimmins, Newmarket, N.H.)



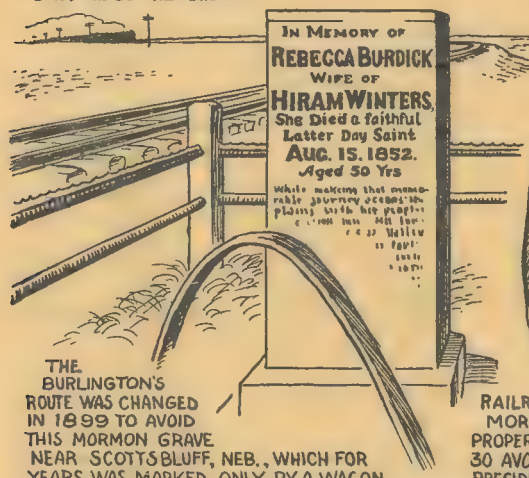
HE USES A RAILWAY TRAIN TO CATCH INSECTS
PROF. HARDY OF UNIVERSITY COLLEGE, HULL, ENGLAND, FIXED A FLY TRAP ON THE OUTSIDE OF A LONDON & NORTH EASTERN FREIGHT CAR TO AID HIM IN STUDYING COUNTRYSIDE PESTS
(Thanks to *L&NE Ry. Magazine* and *Yorkshire Herald*)

IRON PIKE

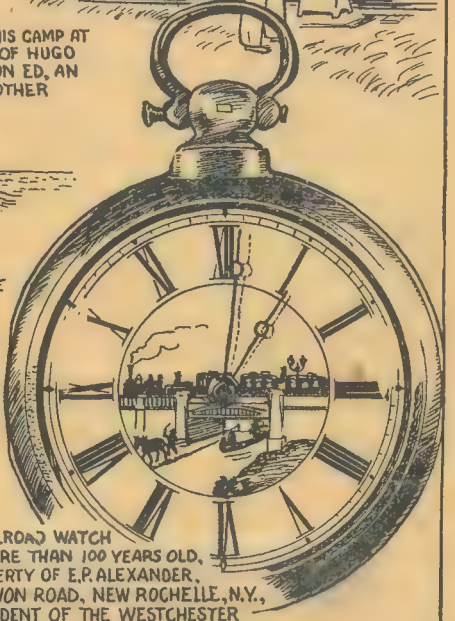
by JOE EASLEY



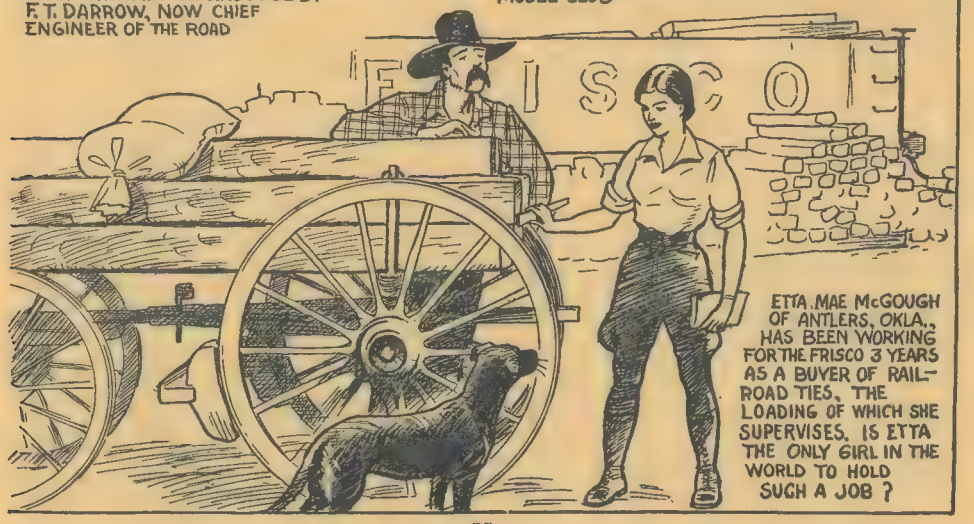
THIS CAR HAS AN UNUSUAL HISTORY. IT WAS MADE FOR MR. BUCHANAN, BUILDER AND OWNER OF LA. & ARK. R.R., FROM LUMBER MILLED IN HIS CAMP AT BODCAW, ARK. LATER IT WAS SOLD TO HOMER HARRIS OF HUGO OKLA., WHO HAD IT FITTED UP AS A HOME FOR HIS SON ED, AN AMATEUR RADIO OPERATOR, AND ED'S BRIDE. UNLIKE OTHER SUCH HOMES THE "BODCAW" STILL RIDES THE RAILS



THE BURLINGTON'S ROUTE WAS CHANGED IN 1899 TO AVOID THIS MORMON GRAVE NEAR SCOTTS BLUFF, NEB., WHICH FOR YEARS WAS MARKED ONLY BY A WAGON TIRE. THE CHANGE WAS MADE BY F. T. DARROW, NOW CHIEF ENGINEER OF THE ROAD



RAILROAD WATCH MORE THAN 100 YEARS OLD, PROPERTY OF E.P. ALEXANDER, 30 AVON ROAD, NEW ROCHELLE, N.Y., PRESIDENT OF THE WESTCHESTER MODEL CLUB



ETTA MAE McGOUGH OF ANTLERS, OKLA., HAS BEEN WORKING FOR THE FRISCO 3 YEARS AS A BUYER OF RAILROAD TIES, THE LOADING OF WHICH SHE SUPERVISES. IS ETTA THE ONLY GIRL IN THE WORLD TO HOLD SUCH A JOB?

By the Light of the Lantern

Ask us what you want to know

RAILROAD questions are answered here without charge, but these rules must be observed:

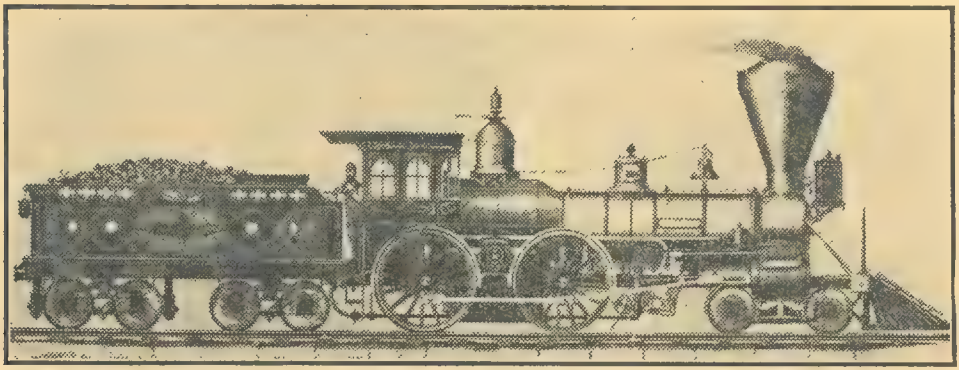
(1) Not more than two questions at a time. No queries about employment.

(2) Always enclose a self-addressed, stamped envelope, to facilitate our getting in touch with you if necessary. We will print only your initials.

(3) Don't be disappointed if answers do not appear at once. They are printed two months before date of issue.

A caption under a locomotive photograph in LIFE recently stated that the top of the driving wheel moves faster than the bottom. How is this explained?—D. A., Baltimore, Md.

This question usually comes up at least once a month, and we generally answer it in print at least once a year. Here is this year's answer. The movement of a wheel on a rail or ground involves two kinds of motion, the revolving motion of the wheel and the motion of the vehicle it supports. The point at which the wheel touches the rail or ground is revolving backward at the same rate as the vehicle is moving forward, and thus to all effects is standing still. The top of the wheel, however, goes in the same direction at twice the rate of the center. This phenomenon can easily be proved by fastening a torch or light to the bottom rim of a wheel at night and watch the movement of the light as the machine is moved. The light does not revolve around the axle, but describes a long arc, and it moves very fast at the top of the arc and comes to a momentary rest as it touches the ground or rail. That is, if you are standing still and watching. Get into another vehicle moving parallel and at the same rate of speed, and the light will then revolve around the axle. What has happened is that your movement has eliminated the effect of the other vehicle's movement, and that you are observing only the revolving motion of the wheel. As long as you do not move and the vehicle moves, you can say that the bottom of the wheel stands still. But if the wheel revolves and the vehicle does not move (e.g., if the wheel slips on the rail or ground), or if you move at the same rate as the vehicle, you can no longer state the matter quite that way.



Some Time Ago a Reader Asked About a Locomotive "Young America." Here Is the "Young America" Built by Breese, Kneeland & Co. of Jersey City (the New York Locomotive Works). The Photo Is from the Collection of Donald Furler, 65 Glen Ave., Glen Ridge, N. J.

Your November issue says the Chicago, Burlington & Quincy is 8,976 miles long, but its timetables say it is 12,000 miles long. Who is right?

(2) *Which road has the largest Pacific type engine?*—A. S., N. Platte, Neb.

(1) We are. The "12,000" miles includes not only the Chicago, Burlington & Quincy, but its controlled lines: the Colorado & Southern (858 miles), Ft. Worth & Denver City (902 miles), Burlington-Rock Island (255 miles), Wichita Valley (271 miles), and Quincy, Omaha & Kansas City (250 miles). These railroads are operated separately, and their financial statements are rendered separately to the Bureau of Railway Economics, on whose figures our list was based. And all these don't even add up to 12,000. The Burlington gives itself credit for 9,252 miles of line on its timetables, whereas it officially reports the 8,976 we listed.

(2) Using weight of engine alone as a standard, the CStPM&O ("Omaha") 600-602 series are. They weigh 347,000 pounds.

* * *

J. E. C., Caldwell, Ida.—We printed photos of the Northern Pacific Class A-2 and the Union Pacific's new 4-8-4's in last month's issue. The NP engines are larger and heavier: they have 28 x 31-inch cylinders, 77-inch drivers, 260 pounds pressure, weigh 489,400 pounds, exert 69,800 pounds tractive force, and boast considerably more heating surface. The UP machines have 24½ x 32-inch cylinders, 77-inch drivers, 300 pounds pressure, weigh 465,000 pounds, exert 63,600 pounds tractive force.

* * *

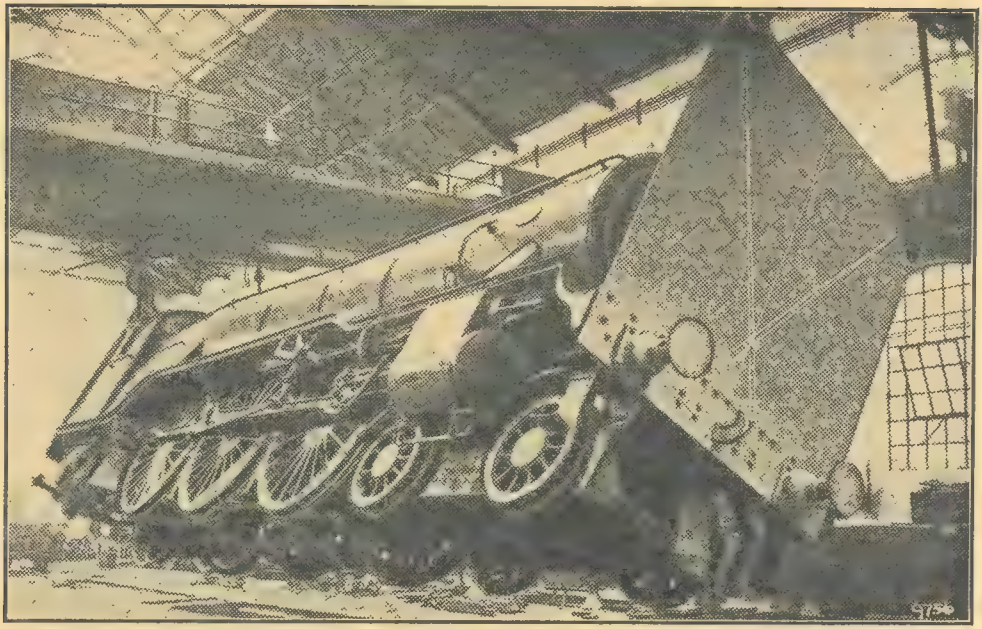
G. O'C., Newark, N. J.—The Pittsburg & Shawmut was incorporated in 1903 as the Brookville & Mahoning. Six miles were opened in 1907, and the present title was adopted in 1910. It operates 104 miles of line, and its main line extends 88 miles between Erie Jct. and Freeport Jct., Pa. It owns 24 locomotives; 739 freight, eight passenger, and 26 miscellaneous cars.

* * *

R. C., Columbus, O.—Since the *Pocahontas* of the Norfolk & Western covers 663 miles eastbound between Columbus, O., and Norfolk, Va., in 18 hours and 20 minutes, it averages 36.6 miles an hour. The Chesapeake & Ohio *Sportsman* does the 643 miles from Columbus to Old Point Comfort, Va. (across from Norfolk) in 18 hours, averaging 35.7 miles an hour.

(2) The so-called Southern roads offer little in the way of extraordinary speeds; with the exception of one for a short stretch on the Florida East Coast (it may not be in effect now), none averages a mile a minute from start to stop. The

One of the 30 New Semi-Streamlined 4-6-4's Now Being Completed by the Montreal Works for the Canadian Pacific. Similar to Nos. 2800-2819, Constructed in 1929 and 1930, They Are Numbered 2820-2849. Nos. 2838-2842 Have Boosters, and Will be Worked on Heavy Passenger Trains Between Toronto and Fort William, Ont., 813 Miles Without Change. They have 22 x 30-Inch Cylinders, 75-Inch Drivers, 275 Pounds Pressure, Weigh 366,000 Pounds (with Booster), Exert 45,000 Pounds Tractive Force, or 57,000 Pounds with Booster



F. Moore's Railway Photographs

The Above Photo and the One on the Opposite Page Show a Remarkable Experiment Made by the London & North Eastern Ry. of Great Britain to Verify the Center of Gravity of One of Its Pacific Type Engines. The Engine Was Hung in Three Positions and a Perpendicular Line Drawn on the Steel Sheet for Each Position. The Point at Which the Lines Cross, of Course, Is the Center of Gravity

fastest runs in the South are made on the Florida East Coast, Illinois Central, Atlantic Coast Line, Southern, and Louisville & Nashville. We are planning another article on mile-a-minute runs, and in connection with that will go into the subject in more detail.

* * *

J. L. H.—For the most complete and realistic discussion of your chances for becoming a Pullman conductor, write to the superintendent of car service of the Pullman Co. in Chicago, Ill. If you state your case clearly and show some aptitude for and understanding of the job other than the fact you think you'd like to be one, the chances are that you will get a decent reply. The same thing goes for any railroad job. Find out what it is like before you ask about it, and then write a sensible letter to the official in charge. Don't ask us for his name and address; if you can't discover that much for yourself, you'd better give up your idea of working on a railroad.

(2) A color-blind man has practically no chance for becoming a brakeman.

* * *

WHO was the Flying Dutchman of railroad fame, and how did he get his nickname? —J. C., Chicago.

Engineer John Gulmyer of the Lake Shore & Michigan Southern, a German-born runner who is said to have broken a speed record on the average of once a week, was known as the Flying Dutchman. Apparently he earned the title while piloting the *World's Fair Special* (or *Exposition Special?*), which he ran on its first trip in 1893. In 1896, in the head engine of a doubleheader, he covered the 133 miles between Toledo and Elkhart in 98 minutes, or at an average of 81 miles an hour.

* * *

T. W. S., The Trona Ry., which runs between Searles and Trona, Calif., 33 miles, was incorporated in 1913, and completed and opened the next year. It is owned by the American Potash & Chemical Corp., and three locomotives and three passenger cars (one motor).

(2) The boosters used on the Southern Pacific's 4300 series of 4-8-2 types are of ordinary design, consisting of a two-cylinder steam engine mounted on a cast steel bed plate, and geared to the trailer axle by means of an idler gear, which is automatically engaged when the power of the booster is needed and disengaged when not needed or when the speed has reached about 15 miles an hour.

R. D. T., Winnipeg and F. G., Wampum, Pa.—The Temiskaming & Northern Ontario was authorized to be constructed in 1902. Today it operates 515 miles of line, 63 locomotives, 513 freight, 65 passenger and 280 miscellaneous cars.

(2) The Algoma Central & Hudson Bay was incorporated in 1899 as the Algoma Central. The name was changed to the present title in 1901. Built under a subsidy of $6,400 a mile plus land grants, it is privately owned and operated. With 323 miles of line, it owns 22 locomotives, 775 freight, 16 passenger and 77 miscellaneous cars. Its main line extends from Sault Ste. Marie to Hearst, Ont., Canada.

* * *

W. S., Far Hills, N. J.—The Santa Fe's green fruit (GFX) trains do not originate at Los Angeles, but at San Bernardino, where they leave at 3 a. m. They leave Gallup at 2 a. m. the third day and arrive at Chicago as early as 9 p. m. the sixth day, to protect a scheduled delivery at 3 a. m. the seventh day at the Chicago Produce Terminal in time for the auction. The schedule is thus from 130 to 146 hours. Sometimes sections leave San Bernardino as late as 7 p. m. the first day and arrive in Chicago by 1 a. m. the seventh day. From Northern California the concentration point is Bakersfield. GFX trains leave Bakersfield at 3 a. m. the first day and Gallup at 2 a. m. the third day. The perishable movement from Los Angeles itself is light, and from San Francisco practically non-existent. Carloads of perishables originating along the line are hauled either to Bakersfield or San Bernardino before being shipped east.

* * *

G. B. R., Philadelphia, Pa.—The Idaho & Washington Northern was chartered in 1907 and built the same year from Newport, Wash., to McGuires, Ida. When it was acquired by the Milwaukee Road in 1914 it operated from McGuires to Metaline Falls, 105 miles, with a six-mile branch.

* * *

J. S., Algona, Wash.—A fireman on an oil-burning engine regulates the supply of oil and thus controls the intensity of the fire by means of conveniently located valves. The burner itself is in the forward part of the firebox, below what would be the ordinary grate level. Instead of grates, the firebox is equipped with firebrick shelves and floors. Occasionally the fireman dumps sand into the sand hole in the firedoor. This is done to clean out the flues, which become gummed and dirty from the unburned matter in the oil.

(2) No especial name is given to the valve controlling the steam supply to the air pump; it is called simply the air pump valve.

F. Moore's Railway Photographs

Verifying the Center of Gravity on a British Engine. See Opposite Page

* * *

P. M., Kokomo, Ind.—Of the 93 miles of railroad line constructed in 1936, 36 were built in the State of Virginia, by the Norfolk & Western. The next largest construction was that of the Carlton & Coast, in Oregon, 20 miles.

The Lackawanna's new 4-6-4's are scheduled for early delivery, and may be finished by the time this sees print.

To Provide Rolling Stock for Its New Royal Blue and Columbian Trains Between New York and Washington, the Baltimore and Ohio Rejuvenated Some Old Standard Equipment According to Plans of Otto Kuhler, Its Consulting Designer. Above Is One of the Dining Cars, Before and After Being Rebuilt. Top of Next Page Shows the Old Type Coaches After Being Streamlined; Bottom, Detail of the Combination Direct and Indirect Lighting Fixture, Showing How Mr. Kuhler Modernized the Old-Style Clerestory

(See Page 60)

L. T. H., Berkeley, Calif.—Canadian Pacific No. 8000, three-cylinder, high-pressure compound engine, has been rebuilt to simple, we are informed, and assigned the number 5920. Like the New York Central 4-8-4 No. 800 (which has been out of service for a couple years or more), she used a water tube firebox (at 1350 pounds pressure) which heated a drum supplying steam at 850 pounds pressure to the high-pressure cylinder, located between the regular cylinders and connected to the second set of drivers by means of a crank axle. The main boiler carried 250 pounds pressure, and supplied part of the steam for the main cylinders, which were also fed by exhaust from the high-pressure cylinder. While both engines showed marked economies (tests with the 8000 indicated savings of around 20 per cent), both have proved difficult to maintain, not so much because of the three-cylinder feature, but because the water-tube firebox could not be relied on.

The Delaware & Hudson 2-8-0 type compounds Nos. 1400-1402 are really two-cylinder cross-compounds, that is, with the high-pressure cylinder on one side and the low on the other. No. 1403 (4-8-0 type) is a four-cylinder, triple expansion engine; two cylinders on a side, one in the usual place and the other under the cab, and both connected to the same main pin.

* * *

J. J. B., Richmond Hills, L. I.—The air pumps on Reading No. 178, streamlined 4-6-2, are mounted on the tender head. We do not have construction details, but the position obviously presented no difficulties. Moreover, it has made for greater accessibility. The main purpose was to smooth down the lines of the machine by moving them where they would not show.

* * *

P. B., Calgary, Alta.—Following is a list of streamlined trains operating in the United States and Canada. Some others may be classifiable as streamlined, but we'll be hanged if we can discover a fixed standard, so we're going to be arbitrary about the matter, and include only those which are completely streamlined externally.

Burlington .....*Zephyrs* (eight)
Boston & Maine.....*Flying Yankee* (one)
Illinois Central.....*Green Diamond* (one)
Milwaukee Road.....*Hiawatha* (four)
Rock Island.....*Rockets* (six)
New York Central.....*Mercury* (two)
Gulf, Mobile & Northern.*Rebel* (two)
UP .....*City of Salina*

(See Page 60)

One of 11 New Diesel Switchers (Six of 600 H.P. and Three of 900) Purchased by the Santa Fe Recently. Two Are Being Used in Los Angeles, Two in Dallas, and the Rest in Chicago

UP-C&NW-SP	*City of San Francisco*
	Forty-Niner
UP-C&NW	*City of Los Angeles*
	City of Portland
	City of Denver (two)
	(two more 17-car streamliners on order)
New Haven	*Comet*
Southern Pacific	*Daylight* (two)
	Sunbeam (two)
Baltimore & Ohio	*Royal Blue* (two)
	Columbian (two)
Alton	*Abraham Lincoln*
	Ann Rutledge
Reading	*Philadelphia—New York Express*
Santa Fe	*Super Chief*

The Canadian Pacific's light weight trains should be included, we suppose. If you consider them as completely streamlined, add them to the list.

* * *

IF the Virginian decided to build a 2-10-10-2 type today, what would be its dimensions, and would it be simple or compound?

(2) *How do the Delaware & Hudson high-pressure 2-8-0's and 4-8-0 compare with modern 2-8-4 and 4-8-4 types in regular service?*—E. H.. N. S. W., Australia.

(1) The chances are that it wouldn't decide on such a wheel arrangement, but would use fewer and larger drivers and more weight on the trailing truck, ending up with a 2-6-6-4 or 2-8-8-4 type. The engine would weigh about the same as the 2-10-10-2's (which are now out of service), but would probably exert less starting tractive force and more at 20 and 25 miles an hour. It might well be compound; although compound engines are nearly extinct when compared to their former popularity, they offer advantages for heavy drag service at low speeds. The Norfolk & Western is still building them for this very thing.

(2) The D&H engines have relatively small driving wheels, on which they carry most of their weight. Obviously, then, they are best suited to slower trains than the 4-8-4's and newer 2-8-4's, which are equipped with wheels of 69-inch diameter or more, and which are capable of passenger train speeds with heavy loads.

Additions and Comments

WE'VE got more to report on the Kaw Valley Line, known as the Kansas City, Kaw Valley & Western. According to Ewing Dale of Atlanta, Ga., passenger and express service was abandoned several years ago between Kansas City and Lawrence, and a couple

Photo by T. A. Gay, 624 78th St., Brooklyn, N. Y.

The Rahway Valley, a Little Pike Operating Between Summit and Roselle, N. J., Bought Consolidation Type No. 20 of the Oneida & Western, Operating Between Oneida and Jamestown, Tenn. The Engine Is Now No. 15

years ago between City Park and Bonner Springs. All passenger equipment, he says, has been junked or abandoned, and the road operates hourly buses to Bonner Springs.

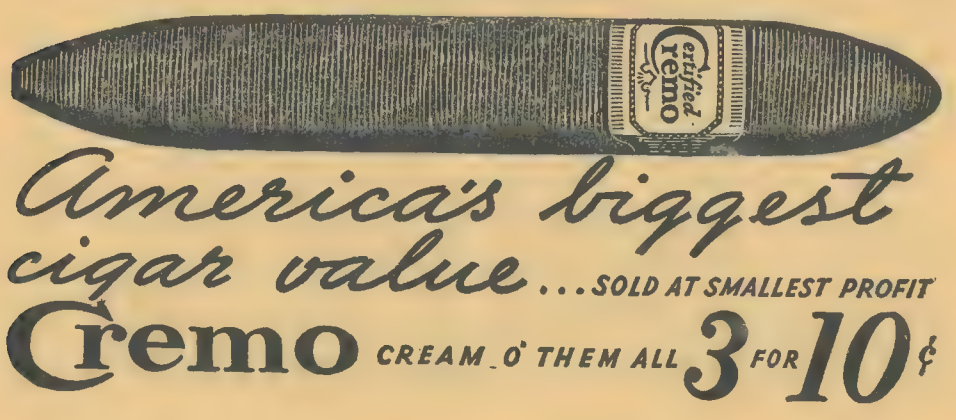
* * *

A New Book About Engines

THE long awaited book by Robert S. Henry and Otto Kuhler on the American Locomotive, *Portraits of the Iron Horse,* is now in the stores, just in time for the holidays. But it is no mere gift book, at least not for the thousands of folks who are even remotely interested in the subject. Written with dignity and simplicity, it is not slanted toward children or adults with the minds of children.

It consists of 80 pages 9½ x 10½ inches, 37 of which are given over to the text, and 36 to black-and-white drawings, with captions, of interesting and important engines. In addition, there is a double spread, in colors, of streamlined steamers. Mr. Henry, who is assistant to the president of the A.A.R., wrote the text and captions; and Mr. Kuhler did the drawings. Most of the drawings are accurate, but Mr. Kuhler's technique, being somewhat impressionistic, does not pretend to be as bald as a builder's photograph. What he has tried to do is to make us feel the speed and power of the machines in motion, and he has succeeded. We thought the picture of the "Handsome Hudsons," though, to be so incorrect and apparently a careless reproduction of the engine's appearance that the total effect suffered greatly. Mr. Kuhler seems to have trouble with fireboxes on modern engines. And if the drawing on page 69 doesn't represent a Canadian Pacific 4-8-4 (it is put down as a CNR job), our eyes are going bad.

These are not relatively important points, and considering the general excellence of the book, can be cheerfully overlooked. For the chronic or nascent fan it is great stuff; yet it is as much for the general public as any book could be. Published by Rand McNally & Co., it retails at $2.



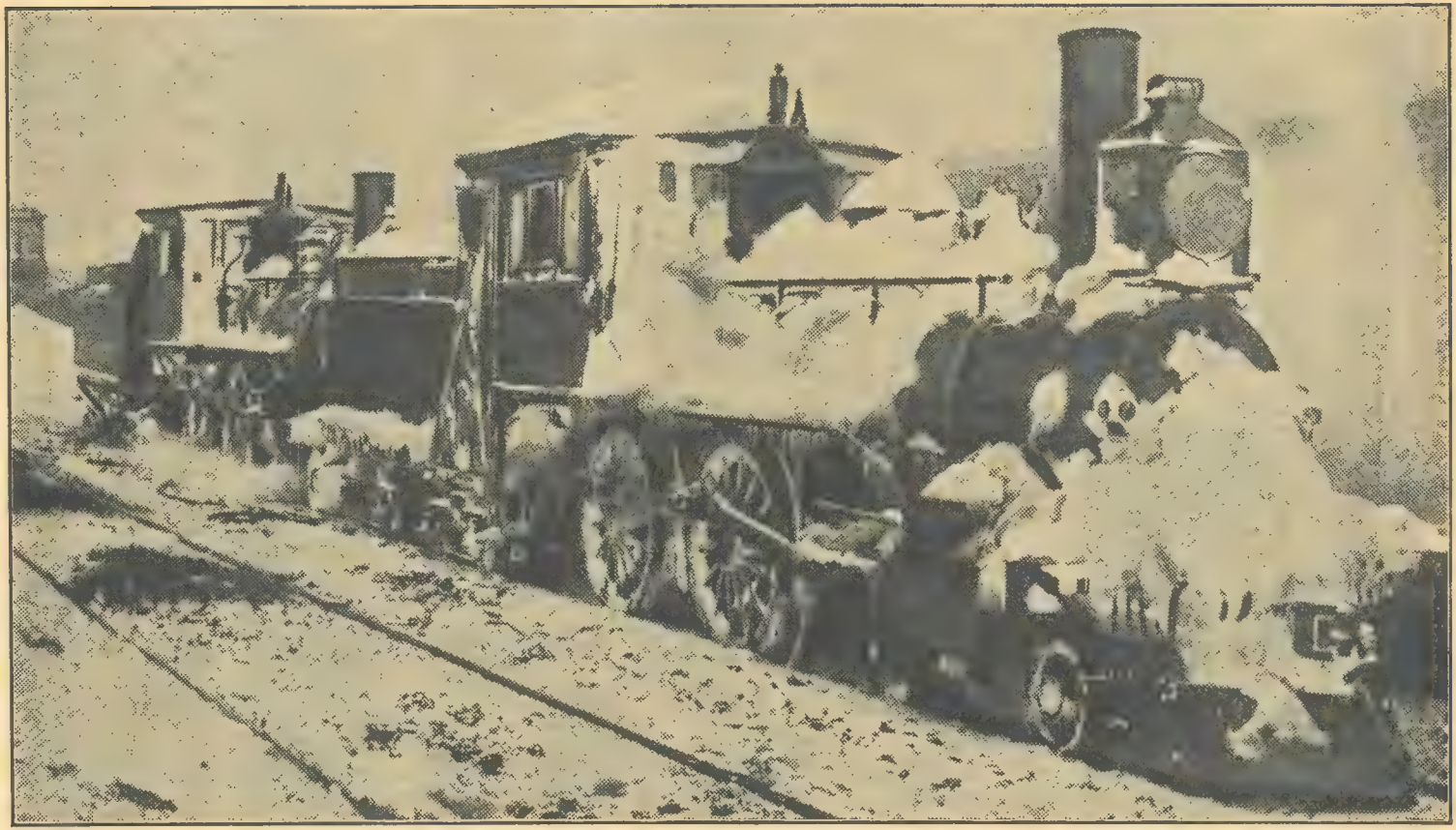
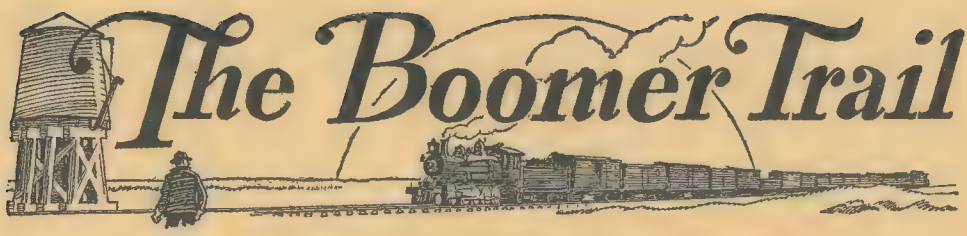


Photo from Collection of Donald W. Furler, 65 Glen Ave., Glen Rock, N. J.

Remember the Big Blizzard That Swept New York State in the Winter of 1904? Here Are a Couple of Engines That Plowed Through It, Numbers 223 and 222 of the Lehigh Valley, Half Buried under Their Blanket of Snow, Photographed at Auburn, N. Y., on February 3rd, 1904. The One in the Foreground Is the 223. These Two 4-4-0's Were Relegated to the Scrap Pile Some Time Ago. Maybe One of Our Readers Can Supply the History of These Interesting Old-Time Locomotives



THERE was a sound of a whistle. The farmer boy dropped his rake and looked with widened eyes at a monster which belched smoke and sparks as she roared along at twenty miles an hour. Behind her came a dozen box and flat cars of some fifteen tons capacity. She ran on iron rails which men had laid a short time before—on hand-hewn ties cut from trees along that very right-of-way. The boy himself had made twenty cents apiece for each tie he had cut, and had laid aside a bank account of thirty dollars or more.

His eyes followed the last car until it disappeared around a curve half a mile away just as suddenly as it had appeared from the cut half a mile above.

The humming grew softer and softer and finally stopped; but it kept sounding in the head of the farm boy, and he realized then and there that he'd never get over a longing to hear it.

He looked up at the farmhouse on the hill where his mother and sisters and brothers lived —and worked from dawn till dark; and then arose at daylight and did the same thing over again; in heat and cold, summer and winter, with the future before them of doing it till they died. He shivered and said involuntarily: "No—no!"

He saw his mother step outside the door, shade her eyes against the noon sun, then reach up and take the cow's horn off the nail in the porch post. A little later the sound of the dinner horn faintly reached him where he stood between the rails of the new railroad track. He started toward the house.

Just then his father came out from the barn and kicked a dog lying in his path—his father, one of the richest farmers, and the most miserly, in the county. The lad stopped and muttered resentfully. That morning he had asked his dad for permission to attend a boys' club meeting in the evening and had been squelched.

"Spend twenty-five cents on such foolishness? Never!" his father had said.

In the distance he heard the whistle of another locomotive, and presently a train came from the woods where the curve bent the track from sight. She was running slowly up the grade and had a long string of cars—at least twenty of them. The farm boy stood in the weeds while the big engine passed. She was moving not much faster than a quick walk. Several cars followed; one came by with an open side door. The youth scrambled inside and drew the door closed. He was on his way.

The brakeman who finally discovered him some hours later climbed inside the car and they talked. That shack himself had come from a farm. He now was making forty a month, and sometimes even fifty when business was heavy. He could get the boy on, maybe.

They liked each other, and at the next stop he took the lad back to the caboose and introduced him to the hind brakeman and the conductor. When they got into the terminal the young fellow was asleep, so they let him stay over the night.

In the morning he went to the nearest restaurant, where several railroad men took him under their wing. Later, at the yard office he offered to work a month for nothing to learn the game, but they made him a call boy at twenty a month. In six months he learned a lot and was promoted to brakeman.

The men he worked with were all of the home guard type, but his feet itched. The division was a small branch line, and at the junction he saw bigger engines and longer trains. Most of the fellows braking there were older and more traveled. They used hard language and lived hard lives. They made up to sixty a month, spending it all on clothes and girls.

One morning the train master pinched his finger while making a coupling. He held the farm boy responsible for giving a wrong signal, cursed the kid and then discharged him. There wasn't any recourse. The youth simply had been fired. For a moment he was troubled; but soon he laughed and looked off over the hills once more, and wondered what lay beyond them, and if he could grab off a job somewhere else. He did.

And then he quickly found that what he had learned on his first job he could put to use in the new one. He found that he was usually a better railroader than the home guard—and proved it. He found also that he could grab off a railroad job anywhere, any time. (That was many years ago, dear reader.)

From then on he romped down through the age of railroad construction at an exhilarating

gait, taking what he wanted wherever he found it. He played the game through the early organizations of railroad men, and helped them fight for their rights; and then, during the decade just passed when the end of all boomers' days came, he cheerfully faded over the horizon to a happier home out in the universe where there is no limit to be reached by rails and construction goes on forever . . .

Yes, the boomers are passing fast. In this California country where I have finally settled down I see many of the old-timers, some of whom have become superintendents and general managers, others just cons and shacks and hoggers. I have just been chatting with one, an ex-general manager, whose chief clerk I had been in a tropical country forty years ago. God, it seems like yesterday!—E. A. WAMSLEY, 12930 San Vicente Blvd., Los Angeles.

* * *

I AM still puzzled over an incident which occurred about fifty years ago when I was firing a yard goat for a hogger named Tink Howard at Paducah, Ky., on the old Chesapeake, Ohio & Southwestern (now part of the I.C.).

One of the regular freight runs out of Paducah was pulled by the 136, a Rogers eight-wheeler; with Engr. Roberts and Fireman Tom Long. The switcher I was firing was the 9-spot. On a certain occasion we pulled up to where Tom Long, just back from a run, was shining brass on the 136 and singing as he worked. He loved that old gal like a sweetheart and it made him happy to polish her up. Anyhow, we got chinning together, Tom and I.

"You know, Slim," he said, "I've had a funny thing happen to me for several trips. I don't know what to think about it."

I could see he wanted to get something off his chest, so I listened.

"It has to do with the high trestle that crosses Chestnut Creek about nine miles from here," he went on. "Every time we roll over that trestle I am wide awake and on the job. But for three days in succession I've had a day dream just at that place. I seem to see the rails buckle and bend like pieces of lead pipe, and then the ties break into splinters—all of this right in front of the pilot while we are hitting the ball at around fifty miles an hour. I told Roberts about it and he only laughed. But I feel it's a warning or something."

I didn't laugh. I'm glad now that I didn't, because on the very next trip over that trestle, in broad daylight, it did just what Tom Long had seen three times in his dream. It buckled and collapsed. Down went the 136 like a ton of bricks to the bottom of the creek, seventeen box-cars piling on top of her. Nobody was killed, but both of the enginemen were injured terribly.

It was three or four months before Tom Long was able to walk again. I asked him about the dream, and Tom said: "Please, Slim, never mention that again!" And I never did—until now. I want to hear from old-timers who can give additional details about that wreck.—C. A. ("SILENT SLIM") ROACH, 1505 S.W. Fourth Avenue, Portland, Ore.

* * *

ONE of my first jobs was telegrapher on the Erie at Port Jervis, N. Y., in 1888. The big blizzard that year created lots of excitement and I enjoyed it. But I was to see a greater blizzard. At 18 I became a boomer. With the aid of a pass part way and an O.R.T. card I reached Pueblo, Colo., passed the single-track book of rules on the D&RG and was assigned to Cucharas Jct. Bob Ford was dealing faro at Walsenburg and I was soon contributing to his upkeep.

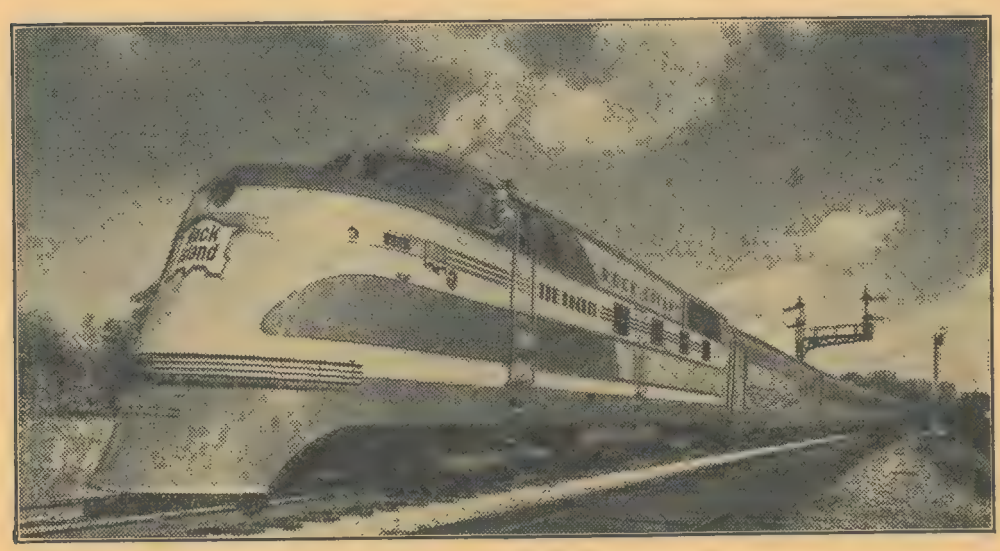
One night it began to snow and blow hard. The next day a drag crawled in on the siding from the south and the crew declared they could go no further. Soon a passenger train from the north arrived and decided to tie up. Fortunately there was a D&RG eating-house which took care of passengers and employees.

The blizzard continued unabated for three days. Tracks were covered with snow to a depth of six to eight feet, while the cuts were filled. A rotary was started south from Pueblo, clearing considerable of the road and then broke down. A second rotary started south, and on the fourth or fifth day it had the line open. Two passenger trains were then started, one southbound from Pueblo and one northbound from Trinidad, both double-headers.

They had orders to meet at Cucharas Jct. Noting that the northbound was making better time, Jim O'Keefe at Pueblo decided to change orders. Calling Granerous and myself, he made the meet 15 miles north of my station at a blind siding. As the train pulled out of Granerous the operator suddenly discovered he had cleared the train with no orders, and frantically began explaining to O'Keefe his error.

Seated in my office was Supt. J. J. Burns and Trainmaster Walker. I asked Mr. Burns to listen to the wire and he realized that a collision was quite probable. He immediately told the men to head all equipment north and be in readiness. It was about midnight when a brakeman, walking back from the wreck, awakened the day operator at Granerous. The trains had come together, making a mess of the four engines. A fireman was killed, others jumped. I think this was in 1889 or 1890. Does any reader remember it?—W. E. EAGAN, % Jas. B. Colgate & Co., 44 Wall St., N. Y. City.

TRAINS THAT ARE MAKING GOOD



No. 16—The Rockets

IN LAST month's issue, after discussing the *Yankee Clipper,* we gave considerable space to hoping that railroads would pay as much attention to smaller trains as they are paying to big ones. This month, appropriately, we are taking up six such trains, all installed on the Rock Island within two months. At the time this is written, the trains have not been in service long enough to make good, or at any rate to provide certain proof of their having made good. Nevertheless, we are going ahead under the assumption they are successful. If they aren't, the Rock Island must be threatening to shoot people who want to ride in them.

These six trains, known as the *Rockets* in honor of the *Rocket,* one of the road's first locomotives, are Diesel-electrics. We merely record the fact. They might have been steam-powered, but the Rock Island no doubt had its reasons for choosing Diesel. As we've said before, type of motive power need have little or nothing to do with a train's acceptance by the public. What really matters is the kind of service it offers.

Judging from the map, they have been strategically located. One of the four-car trains makes two daily round trips between Chicago and Peoria, Ill., covering the 160 miles each way in exactly 160 minutes, and thus providing what amounts to commuting service. You can leave Peoria in the morning, arrive in Chicago at 9.40, spend the whole day there, leaving at 7.00 p.m., and be back not long after dinner.

The other four-car unit is being operated between Chicago and Des Moines. Departing from Chicago at 5.45 p.m., it rolls across Illinois and halfway across

Iowa, making as many as nine stops, to pull into Des Moines, 358 miles from Chicago, by 11.45 p.m. In the other direction it leaves Des Moines at 7.15 a.m. and arrives in Chicago at 1.15 p.m. The average is practically a mile a minute, including stops.

That leaves the four three-car trains. One of these operates over the Burlington-Rock Island R. R., owned jointly by the Burlington and the Rock Island. This train, the *Texas Rocket,* augments the service of the *Sam Houston Zephyr,* of the Burlington, between Fort Worth and Houston, Texas, and makes a round trip a day. The 283 miles each way are covered in 310 minutes; but the 250 miles between Dallas and Houston take only 250 minutes. Incidentally, the Southern Pacific also provides streamlined service between Dallas and Houston with its new steam-powered *Sunbeam,* similar to the famous *Daylight,* already taken up in this series.

Two three-car trains are now on a day-

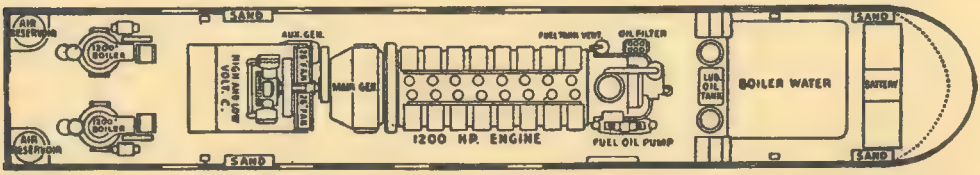
DINETTE COACH ON ALL TRAINS—COACH SECTION CAN BE SET FOR DINING CAR USE

LARGE COACH ON ALL TRAINS

SECOND COACH ON FOUR CAR TRAINS

LOUNGE CAR ON FOUR CAR TRAINS

LOUNGE-COACH ON THREE CAR TRAINS



Floor Plan of the Rockets' Motive Power Car. The Crew Sits in the Insulated Compartment Above the Boiler Water

(Upper) The Dinette Coach, Looking Toward the Pantry. The Tables Can Be Folded Away When Meals Are Not Being Served. Note the Individual Lights Built Into the Baggage Rack Above Each Seat. These Can Be Dimmed and Brightened at Will by the Passenger. (Lower) The Observation-Lounge Car, Looking Backward from the Bar

light run between Minneapolis and Kansas City, 493 miles. One leaves Minneapolis at 12.20 p.m., and arrives in Kansas City at 9.45, while the other leaves K. C. at 10 a.m. and pulls into the Flour City by 7.20 p.m. The 482 miles between Kansas City and St. Paul are run off in 525 minutes, or at an average of better than 55 m.p.h. Five stops are made each way.

The fourth three-car train was installed between Kansas City and Denver, with connecting service to Colorado Springs, on October 18th. It leaves Kansas City at 9.30 a.m. on Monday, Wednesday, and Friday, and arrives at Denver at 8 p.m. the same day, thus doing the 636 miles in 690 minutes. (The motor connection at Limon arrives in Colorado Springs at 8.08.)

The Rockets Were Christened by Eight- Year-Old Jean Fleming, Daughter of Joseph B. Fleming, One of the Rock Island Trustees, with Bottles of California Champagne. James E. Gorman, Rock Island President, Is Looking on

Running eastward, on Tuesday, Thursday and Saturday, the *Rocket* leaves Denver at 8.30 a.m. and arrives in K. C. at 8.40 p.m., using only 670 minutes for the run. The connection from Colorado Springs is due out of that town at 8.15 a.m.

The accompanying diagram gives the layout of both the three and four-car trains. As you will note, the latter contain more parlor car space, and hence, despite the additional car, have 177 saleable seats as against 150 in the smaller trains. In both cases, the seats in the dinette car are not counted, though they are built to accommodate passengers between meals. Every car, by the way, has a radio.

The first car of the train, the dinette coach and baggage car, is semi-articulated; that is, its head end rests on a complete four-wheel truck, while the rear truck is shared with the car behind. It weighs about 94,400 pounds. The interior color scheme is predominantly green—a light green carpet with wavy design, "sea-foam" green upholstery, slate green side walls, and gray shale ceiling and racks. The drapes are gold, for contrast.

The 68,000-pound second coach, on the four-car trains, is entirely articulated, sharing its trucks with the car ahead and behind. Its ceiling is pearl gray, side walls orchid gray, window sills a dark purple, upholstery a light blue-gray, carpet a deep wine color with a white figure, and drapes are red. This coach is not included in the three-car trains.

Next in the train is the large coach, semi-articulated, and weighing 84,375 pounds. Its side walls are rose-colored, its carpets rust-colored, and the upholstery another shade of rose. The ceiling is what is described as flesh.

The last or observation-solarium car of all the trains rests on two trucks, and weighs about 91,000 pounds. Though the seating arrangement is different on the four-car trains, each observation car is equipped with a quarter-circle bar, painted to match its soft blue walls and upholstery.

Built by the Budd Co. of Philadelphia, every car is of stainless steel and is fully streamlined, presenting a smooth, unbroken appearance. As is usual in Budd equipment, the windows are extra wide. Altogether, the three cars weigh about 133½ tons, and the four cars better than 167 tons.

The motive power unit of each train is identical. It is a 1200-horsepower Diesel-electric, constructed by the Electro-Motive Corporation and styled by General Motors. In working order, with running supplies, it weighs between 110 and 115 tons. We don't believe in belittling progress, but we can't help noticing the high ratio of motive power weight to car weight. No doubt the engine can haul a heavier load than these four-car trains provide, but the fact re-

mains that steam locomotives are regularly pulling, on mile-a-minute schedules, trains weighing more than four times as much as the engine and tender loaded. If the Diesel-electric is going to run away with the locomotive building industry the way its prophets have said it would, it will have to show up better than it does here.

Which doesn't alter the fact that the customers of the *Rocket* trains are getting more for their money. That is what counts, and what will doubtless entitle these trains to a place near the top of the long list of trains that are making good.

Locomotive Lost Since 1878

LOST: One locomotive costing $18,000, somewhere in Colorado. Finder will please notify Kansas Pacific Railway. To the best of our knowledge, no such advertisement was ever placed in any publication. And yet—incredible as it seems—the K.P. (now U.P.) could have run such an ad in all seriousness. This is what happened:

On May 21st, 1878, the country in and around Denver was deluged with flood rains which continued through the day and into the night. That night a section hand decided to have a look at the bridge over Kiowa Creek. Wrapping himself in a slicker, he ventured forth and reached the bridge just in time to see it washed out. With a loud groan that thundered out over the storm, the timbers gave way, smashed to bits, and were swept along the seething tide of flood waters.

For a few seconds the white-faced railroader viewed this destruction. Then, remembering that a train was due, he rushed back to his shanty for a red lantern. But it was too late. Through the thick curtain of rain he saw the staring eye of a locomotive. On she swept, her headlight brighter; and then the train whipped past him on the sagging tracks—through the night-blackness, into the flood. Frozen by terror, he watched the engine poise momentarily over the water, and plunge. Cars were yanked past him into the swollen flood. Then with an awful jolt the couplings broke and the rest of the train was derailed on the bank of the creek. The locomotive and several cars had disappeared.

Next day, after the storm died down, searching parties found the bodies of Frank Seldon, fireman, and John Piatt, brakeman. The body of the engineer, John Bacon, was not discovered till four days later. The engine had sunk out of sight in quicksand. This sand was probed with long iron rods, but nobody ever found her. And so, today, somewhere in Colorado a K.P. locomotive is rusting her heart away in an unknown grave.—Martin J. Maloney

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Many Never Suspect Cause Of Backaches

This Old Treatment Often Brings Happy Relief

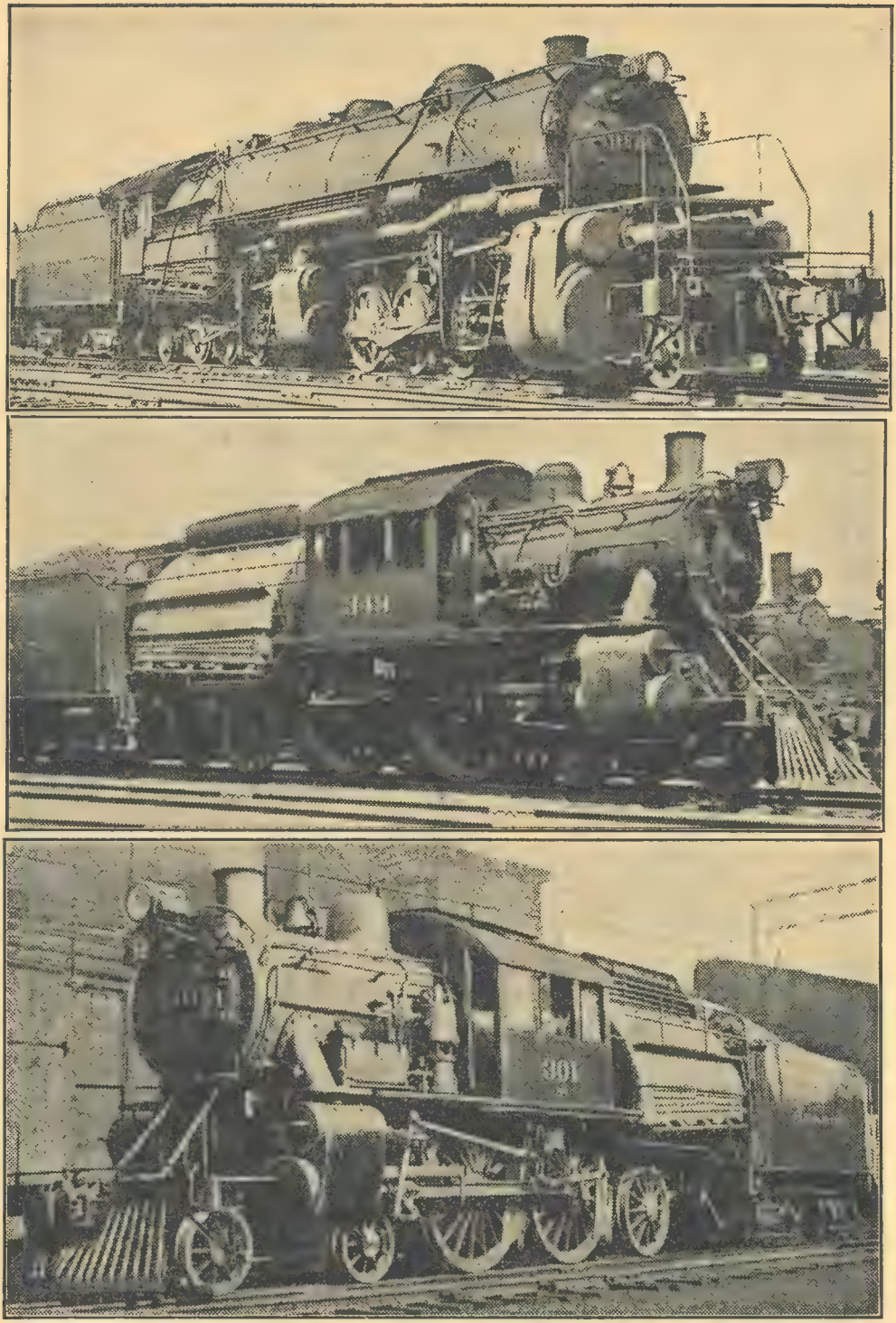
Many sufferers relieve nagging backache quickly, once they discover that the real cause of their trouble may be tired kidneys.

The kidneys are Nature's chief way of taking the excess acids and waste out of the blood. Most people pass about 3 pints a day or about 3 pounds of waste.

Frequent or scanty passages with smarting and burning shows there may be something wrong with your kidneys or bladder.

An excess of acids or poisons in your blood, when due to functional kidney disorders, may be the cause of nagging backache, rheumatic pains, leg pains, loss of pep and energy, getting up nights, swelling, puffiness under the eyes, headaches and dizziness.

Don't wait! Ask your druggist for Doan's Pills, used successfully by millions for over 40 years. They give happy relief and will help the 15 miles of kidney tubes flush out poisonous waste from your blood. Get Doan's Pills.



Three Reading Engines: (Top) No. 1814, Mallet Type, Snapped at Gordon, Pa., by R. P. Morris, 214 Gelston Ave., Brooklyn, N. Y. (Center) No. 343, at Reading, Pa., by Clinton Andrews, 935 Washington St., Easton, Pa. (Bottom) No. 301, at Philadelphia, by R. Farnsworth, 219 E. Hortter St., Philadelphia, Pa.

Locomotives of the Reading Co.

Corrected and approved by A. K. Galloway, Superintendent of Motive Power, on October 26, 1937

Photo by W. R. Osborne, 38 Colonial Ave., Whitehorse, Trenton, N. J.

No. 1172, One of the Reading's Many Camelback 0-4-0 Switchers

(The initial "C" after the number identifies the engine as a 'camelback")

0-4-0 (Four-Wheel Switcher) Type

Class	Numbers	Cylinder Dimensions	Driver Diameters	Boiler Pressure	Weight without Tender	Tractive Force	Builder and Date Built
A-4b	1187, 1188, 1189, 1192, 1193, 1195, 1196, 1200, 1240, 1248-1249 (C)	16x24	50	200	104,800	20,889	BLW, 1902
A-5a	1147-1184 (C)	18x24	50	185	110,450	24,456	P&R, 1905, 07

0-6-0 (Six-Wheel Switcher) Type

B-4a	1251 (tank)	20x24	50	150	120,000	24,500	P&R, 1918
	(This engine is said to have been built originally by Baldwin in 1863 as No. 10 of the Catawissa R. R.)						
B-5b	1305, 1306 (C)	20x24	50	160	121,225	26,112	P&R, 1890
B-6a	1311, 1312, 1314	20x26	50	170	125,075	27,730	P&R, 1898
B-7a	1321-1356 (C)	20x28	55	200	162,100	34,618	P&R, 1907, 13
B-8a	1316-1318 (C)	20x26	50	200	154,125	35,360	BLW, 1907
B-8b	1393-1399 (C)	20x26	50	210	156,000	37,150	P&R, 1914
B-9a	1451-1470	23x28	55½	185	169,800	41,967	P&R, 1916

0-8-0 (Eight-Wheel Switcher) Type

E-3b	1400, 1401, 1403, 1404, 1406-1409 (C)	21x28	55	205	177,710	39,121	BLW, 1905
E-4a	1410, 1412, 1414, 1415, 1418, 1419, 1422-1426, 1428,1433,1434,1436(C)	22x26	55½	180	155,600	34,691	BLW, 1892-94, as Nos. 890-899, Class I-4; rebuilt from 1906 on
E-4a	1429 (C)	22x26	55½	175	155,600	33,727	
E-5sa	1490-1499	26x32	55½	215	280,610	71,250	BLW, 1924

4-4-2 (Atlantic) Type

P-5sc	344 (C)	22x26	80	215	234,025	28,747	P&R, 1912
P-5sd	341, 345, 346, 347 (C)	23x26	80	215	224,020	31,419	P&R, 1906
P-5se	340, 342, 343, 348, 349 (C)	23x27	86	215	220,500	30,350	P&R, 1906
P-6sb	300-303 (C)	22x26	80	215	217,450	28,747	P&R, 1911
P-7sb	350-353	23½x26	80	215	231,925	32,800	P&R, 1915; rebuilt from 110-114 (4-4-4 type)

No. 1700, First of the Reading 2-8-2's, as She Looked When Built in 1914

One of the Ten-Wheelers for Fast Freight, No. 604, as She Looked When Turned out of the Baldwin Works in 1905

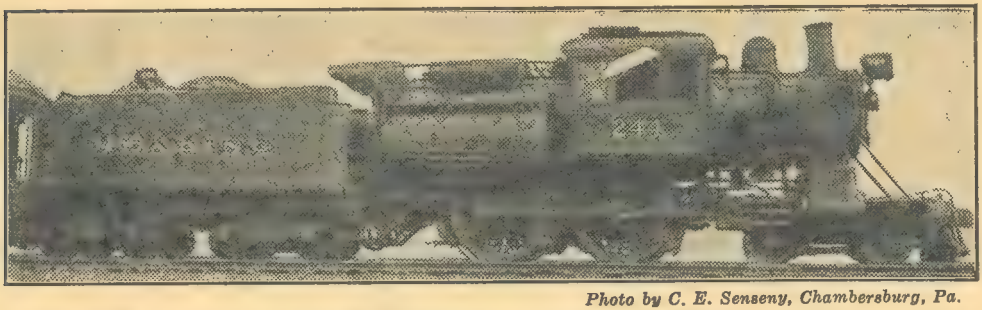


Photo by C. E. Senseny, Chambersburg, Pa.

No. 244, Class D-8b (Now Scrapped) Snapped in 1932 While in Passenger Service from Harrisburg to Carlisle, Pa. Class D-8b Had 20 x 24-Inch Cylinders, 74-Inch Drivers, 200 Pounds Pressure, Weighed 154,200 Pounds, Exerted 22,054 Pounds T. F., Was Built by Baldwin in 1888

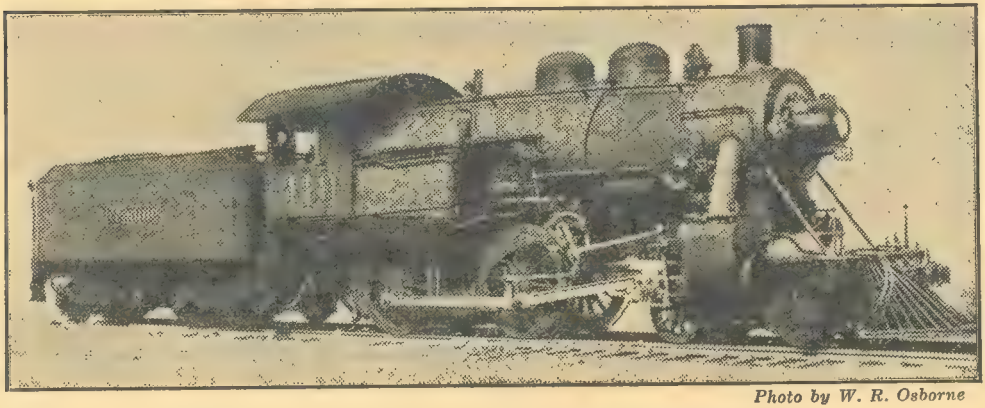


Photo by W. R. Osborne

Class D-11's (No. 419 Above), the World's Most Powerful 4-4-0 Type

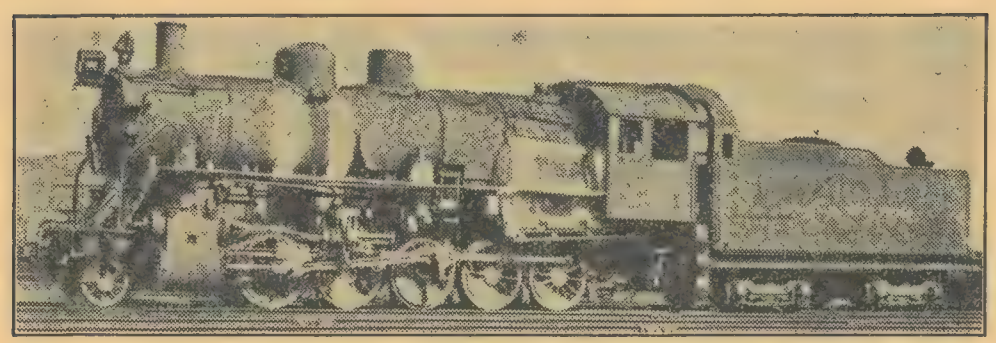


Photo by C. J. Regensburger, 2145 N. 3 St., Philadelphia, Pa.

The Reading Had a Class J-1sa, Consisting of the "Russian" Decapods Built for the Imperial Russian Government but Never Shipped Abroad Because of the Revolution. Above Is No. 1129, Which Had 25 x 28-Inch Cylinders, 52-Inch Drivers, Weighed 208,400 Pounds, Exerted 51,490 Pounds T. F.

No. 558, One of Class L-3se, Snapped at Reading, Pa., by R. P. Morris

4-6-0 (Ten-Wheeler) Type

L-1s	541 (C)	20x24	61½	145	136,525	19,238	BLW, 1892
L-1c	539, 551 (C)	20x24	61½	175	141,005	23,220	BLW, 1892
L-3se	556-564, 572-574, 578-580 (C)	22x26	61½	200	187,500	34,750	BLW, 1894
L-4e	565, 566, 568, 569 (C)	21x26	61½	200	167,200	31,700	BLW, 1899
L-4f	571, 576	21x26	61½	185	155,525	29,300	BLW, 1899, 1900
L-5se	587-591, 597-601 (C)	22x28	68½	200	186,350	33,632	BLW, 1902
L-6sa	616	23x28	68½	220	235,400	40,436	BLW, 1905 as No. 603; rebuilt with Caprotti valve gear in 1928
L-7sb	602, 604-609, 611-615 (C)	23x28	68½	205	216,640	37,679	BLW, 1905
L-8sc	690-698, 700 (C)	22x26	68½	200	199,800	31,200	BLW, 1906, 07
L-8se	650-654 (C)	22x24	68½	200	198,300	28,800	BLW, 1906
L-10sb	675 (C)	22x26	74	215	221,050	31,100	P&R, 1911
	676 (C)	22x26	74	205	220,450	29,690	

4-4-0 (American) Type

D-3h	163, 168	18½x22	61½	180	127,800	18,732	P&R, 1881
D-5f	269 (C)	20x22	68½	200	141,291	21,839	BLW, 1901, 1902
D-5h	280, 287 (C)	20x22	68½	200	144,100	21,839	BLW, 1905, 1906
D-8c	400 (C)	20x24	68½	200	166,925	23,800	P&R, 1911
D-8sd	401, 404, 406-408 (C)	21x24	68½	200	169,825	26,267	P&R, 1911
D-11s	410-419	21x24	68½	210	173,490	27,580	BLW, 1914

2-8-2 (Mikado) Type

M-1sa	1700-1726, 1747-1756	25x32	61½	220	335,000	60,800	BLW, 1914, 1917
M-1sb	1727-1746	24x32	55½	215	335,000	60,690	BLW, 1916

2-8-8-2 (Mallet Articulated) Type

N-1sb, c	1817, 1819, 1820, 1822-1830, 1812-1815	26&40x32	55½	210	478,500	98,400	BLW, 1917, 1919
N-1sd	1821, 1811, 1816, 1818	23x32 (4)	55½	215	496,300	111,400	BLW, 1919

Concluded Next Month

Forgotten Favors

Cardwell Did Not Let Sentiment Interfere with His Rise to Power

By ED SAMPLES

Author of "Student Brakeman," "Blacklisted," etc.

KING-PIN CARDWELL blew into Bagdad around the middle of December. His reference showed he had come up through train service to act as yardmaster in a busy terminal. Although not particularly needing men at the time, Trainmaster Scooby of the Pacific Eastern looked him over and hired the young fellow on the Bagdad board as brakeman with rights as emergency conductor.

Cardwell did not tell a hard luck story, either to the trainmaster or to the boys. He did not whine about sacrificing ten years' seniority and a clear alley to the swivel chair in order that he might bring his tubercular wife to the Southwest.

In fact, Cardwell did not spend much time loafing around town getting acquainted, either then or later. He rented a little shack on the cheap side of the railroad tracks and wired his wife in Denver to come down with their son on the night train. Then he told the call-boy he could not leave town until after the Denver train had run. After that he bought a broom, a mop and a pint of soft soap, and spent the day making his shanty fit to live in until he could afford to rent a better one.

That night he met Engineer Bob Maguire. The latter had been called to go north on the drag which always left Bagdad shortly after the Denver train pulled in. While Maguire was folding his trousers and putting them into his grip, the newcomer strode into the crew room with a lantern on his arm. He paused just long enough to size up the four or five men who were changing clothes, then went to Bob.

"Are you Maguire?" he asked, and

introduced himself. "I'm Cardwell," said he. "I'm called to brake ahead for you fellows tonight. I've got to meet the Denver train. I don't like to have a delay chalked down against my record, first trip out. Would it be asking too much of you and your fireman to put the engine on for me, in case I don't make it back in time?"

Custom and contract pretty well divide train work between train and engine crews. Firemen are not paid to throw switches and couple engines any more than brakemen are paid to scoop down coal from the tender or fill the water tank.

Maguire sized the new man up carefully and realized Cardwell was no mere chiseler. He was about to say "yes" when his boomer fireman, who had just taken a drink or two, or maybe three, rasped out:

"Askin' plenty for a stranger, ain't you, brakie? The boys on the jobs I've worked generally lay off till they get ready to go out."

Cardwell's ears burned. Seldom in his life had he asked a favor or offered an explanation. He did not try to explain then that the office had mishandled his request not to be called until after the train had run, nor that he could not afford to miss this call and wait for another; nor that his wife was too ill to help herself and the youngster to the new home to which she was coming.

He replied shortly: "If that's the way you feel about it, you can sit on your can until I get back; and I'll take the delay."

In due time the Denver train rolled in. Darkened sleepers blocked the foot crossing leading to the roundhouse. Pretty soon he came back to the train and stopped at the rear end of the tourist sleeper.

He swung Across to the Right Pilot Step to Signal the Engineer as the Caboose Came On (Page 84)

A porter opened the vestibule and started helping the family down. The son came first, a lad of seven, frail and slender and shivering in the chill of the mountain night. He was followed by the invalid wife, wrapped in the remains of what had once been an expensive fur coat; and then by a frail old lady, Mrs. Cardwell's mother.

The engineer and fireman, waiting beside the crew-room door, watched the new brakeman greet his family. Maguire was touched. Even the fireman cleared his throat and said: "God, but I'm sorry. Had no idea it was like this. Why didn't the man say something?"

Maguire turned from him to Cardwell. He heard the wife ask in a hollow voice: "And you really got work in Bagdad?"

"I sure did, darling," came the answer. "It's only a job braking, but we can live on it in this healthful country until you pull out and chase the bugs away. Then we'll start life over."

"I'm so thankful," she murmured wearily. "Shall we go now?"

While Cardwell was gathering the woman in his arms to carry her to a waiting cab, Maguire tapped him on the shoulder and asked quietly: "Can I help you load up?"

"No, thanks! I can manage."

Cardwell's curt reply showed that he remembered distinctly how his request in the crew room had been refused. Maguire remembered, too, and said hastily:

"We'll look after things for you here, Cardwell. If there's any delay, we'll cover it. Take all the time you want."

Their eyes met in a quick glance of understanding. The brakeman responded: "Thanks, hogger. I'll be back as soon as I can."

EASTBOUND trains of the Pacific Eastern leave Bagdad and climb through the winding defiles of the Packrat Mountains. It requires power to lift them the eighteen hundred feet in fourteen miles to Summitville, and brakes to hold them on the twelve hundred foot drop to Trinity. From Trinity they streak down the gradual descent through the foothill country to La Rosa, eighty miles beyond.

When Cardwell returned, the four huge low-wheeled decapods were coupled on, two ahead of the forty cars of lumber, ore, and coal, and two behind the caboose. Cardwell looked over the train and then got into the cab with Maguire, asking to see the orders.

While unfolding them to read, he said: "This mountain work is new to me. I've had experience, but it's been on the prairie runs. Reckon I'll have to learn my railroading all over again."

"Not all of it," the engineer assured him. "If you remember two things you won't have much trouble. The first one is: When you leave cars on this hill, anchor them with *plenty* of hand brakes. The second is: When you're picking up cars somebody else has set out, be sure your air is coupled through and working before you let the hand brakes off of them."

Cardwell nodded.

"Then, of course," the engineer went on, "you have to help handle retainers going down the mountain both ways. Aside from that, there's little new. You'll soon learn, young fellow, and think nothing of it."

Cardwell did not go bragging about his knowledge and experience. He did not say he had spent seven years running freight trains and handling a yard. But Maguire could tell by the way he read and talked over the orders that King-Pin Cardwell was no novice. He

inquired about the trains they were to meet and the layout of the switches. He asked about the message: "Exa 1604 east fill to sixty cars at Summitville."

The other man explained that Summitville was on top of the world; that although *four* engines were needed to pull forty cars up from the Bagdad side, *one* would handle all the cars she could pump air for from there on to La Rosa.

"We often take sixty of them down the hill," he added, "especially with eastbound business as heavy as it has been this fall."

The new brakeman then inquired as to the layout of the switches at Summitville. Maguire said there were four storage tracks making off from the passing track on the east and that their cars would probably be coal, first out on one of those four tracks.

"You cautioned me awhile ago about setting hand brakes on cars left standing," Cardwell recalled. "Do you tie down the train when you leave it to go switching?"

Bob Maguire shook his head and explained.

"Not unless you have a lot of switching to do. You know, of course, that the air brakes will hold them till they leak off. Usually the swing man stays with the train, while the head man chops off the engine, grabs the pickup, couples up the air, and lets off his brakes. The conductor always comes over to help with the work, just as he does on the prairie runs."

NIGHTS are cold up around Summitville. Snow comes early in September and clings to the north slopes until May; and though the sky be clear or cloudy, the wind whipping down from the polar regions is never still.

King-Pin Cardwell was ill clad to stand the sub-zero temperatures. Instead of flannels, mackinaw, and mittens, he wore only denim, hat, and unlined gloves. Maguire noticed it and knew why, and silently admired the man for his spunk in carrying on half-frozen.

After coupling into his twenty cars, Cardwell waited until the engineer charged the train line, tested the air, and let off the brakes. Then he got those cars into the train quickly and easily, as though he had been working there for twenty years, and scrambled into the cab to thaw out for a minute by the firebox while the air was pumping up.

When they were almost ready to leave, Maguire asked if he understood about the retainers.

"I know where to find them all right," Cardwell answered promptly.

"That's fair enough. You'll be responsible for the first twenty cars. Turn up ever other one and let them ride to Coaldale. There you turn down the one lot so the wheels won't burn up, and turn up the others."

Cardwell was not at all nervous. He went right out on top with the wind-blown snow whipping over those coal cars and did his work like a mountain veteran. Maguire, seeing his light on the curves, wished he had told the new man to come down and ride the hog instead of staying back to freeze.

The running time for drag freights on the thirty-five miles from Bagdad to Trinity was four hours. That night the extra required nearly six. Because it was eighty miles to the next eating-house, crews always pulled their trains into the clear and went to the restaurant for a lunch before leaving.

When they had tied up and taken coal and water, Bob and his fireman

started to the restaurant. Cardwell had looked around his train and was climbing into the cab. The engineer asked him:

"Have you eaten yet?"

"No," was the reply. "I'll wait till we get to La Rosa."

Now, every railroad man knows that when a brakeman refuses to go eat with the rest of the crew, he is either sick, broke, or saving his money for another purpose. Maguire urged:

"Come on over and have a stack of cakes and a cup of coffee with me."

"No, thanks! I don't believe—"

"Come on! You may not see another bean'ry till dark tonight."

Very reluctantly, as if accepting favors hurt him, Cardwell went along.

THEY made several trips together the next few days, as Christmas drew near, and Bob Maguire came to know the newcomer better than anyone else in Bagdad. Cardwell was a proud cuss. He did not like to talk about his finances, and tried hard to keep his chin up and carry on as if he owned the world; but he didn't fool Maguire.

The engineer was older than he by ten years and had been around a lot. He knew that a healthy brakeman doesn't tap a company meal book for doughnuts and cheap sandwiches merely from choice or to protect his digestion. Finally, when he saw Cardwell sneaking away to spend those sub-zero nights sleeping in a caboose without blankets instead of getting a room uptown, he figured the young fellow was down to the point where he needed a helping hand.

So he went into action and by a bit of tactful prying he wrung from Cardwell the admission that there was less than five dollars in the family purse to last them until the middle of January. Very tactfully, so as not to offend sensitive feelings, he urged Cardwell to accept a small loan.

"You can repay it when you get on your feet," he said. "No hurry."

Cardwell accepted, thanked him for it, and assured the engineer he would not forget.

After that Bob went pulling passenger during the holiday rush and didn't see much of his new friend until Christmas Eve. Cardwell waved at him that morning from the cupola of a drag which was pulling out of the La Rosa yards as he was running in on Number 8.

He chuckled softly, because he was thinking of a certain Christmas tree, all decorated and full of presents, which Mrs. Maguire and her Ladies' Aid were planning to set up in the front room of the Cardwell shanty on their way to the church party that night.

Maguire did not get out until after dark. He was called then for a belated second section of Number 13 doing local passenger work. His train was composed of four wooden coaches, all loaded to the vestibule and hauled by a freight engine. He stepped right along with them, figured he would get in by the time the folks arrived home from the Yuletide party.

Cardwell was braking behind that trip for "Beefy" Miller. Beefy was one of those reckless old boys who believed that rules were made to be broken. Because it was Christmas Eve, he got an early start breaking the one called G. When he came down to go to work he already had a half pint of whisky in his belly and two full quarts in his grip.

In fact, Beefy kept "celebrating" all day. Every time they pulled into a passing track to let a belated streak of varnish by them, he paraded over to

the head end of his ore drag and passed the bottle among the crew.

CARDWELL was no booze hound. This night he felt less than ever inclined to drink, because he knew from the way the rest of the crew were hitting the bottle that he was going to need his wits about him before the trip was done.

By the time they headed in at Trinity at nine P.M. the rest of the crew were a pretty hilarious bunch. The swing brakeman "passed out" while they were there, and had to be put to bed and left behind. Because Beefy Miller didn't dare to turn him in, they did not tell the dispatcher; and so they started up the hill short-handed, with only two brakemen instead of the three required.

Drag freights usually hauled two thousand tons up from the east with three engines, one of them shoving behind the caboose. That night, however, because the rush was using all the power, they reduced to fourteen hundred tons at Trinity and started up the hill with two engines coupled ahead of thirty cars.

That Packrat Mountain run was—and still is—no job for softies, deadheads, or student brakemen. The boys who handle a club on that hill must have nerve as well as experience, for when things go wrong they must think and act quickly.

Cardwell was uneasy. With a hoghead who had been celebrating the birth of Christ until he could not count the notches on a throttle quadrant, with thin snow sifting from a frozen sky to glaze the rails; and with journal boxes clogged by packing made stiff from loafing through the sidetracks, King-Pin Cardwell had a hunch they were going up the hill twice.

They dragged along until they passed Coal Creek, five miles below the tunnel. Second Number 13 was then closing in on them from behind. According to their last order, they had barely time to make Summitville ahead of the train behind. If the men who knew the mountain had had their wits about them, they would have backed into Coal Creek and let second Number 13 by; for the hard pull, the controlling grade, was between there and the tunnel. Beefy and the hoggers, however, were very sanguine. They thought they could pull the world with two engines. They highballed Coal Creek.

Cardwell had been sitting in the cupola all the way up the hill listening to Miller's drunken chatter and holding his breath every time a driver started spinning. At length when they struck the hard pull and their speed fell off, he went down to the platform and threw a fusee into the track to hold second Number 13 until he could get some brakes set on the train in case they stopped.

And they stopped. Two miles down from Summitville the two big hogs stubbed their toes at the same time and fell down. The engineer set the air brakes and whistled out a flag.

If there had been a swing brakeman, Cardwell would have gone back at once to stop Number 13. But he remembered what Bob Maguire had told him that first night: "When you leave a cut of cars on this hill, be sure you tie them down with *plenty* of hand brakes." He started forward, bleeding off the air and setting hand brakes.

When he was on the second one Conductor Miller came out and rasped:

"What the hell you doin' up here? Whyn't you back down there lookin' after that passenger train?"

"She's not due out of Coal Creek yet," said Cardwell firmly, "and some-

body's got to set brakes on this outfit to hold her till you get back."

"Don't need any brakes," Beefy stormed. "The air will hold 'em an hour. We won't be gone but a few minutes, an' we don't wanta fool around here lettin' off a lotta brakes when we come back here to pick up this hind end. You go on down there an' do your flaggin' an' forget about these brakes!"

BEEFY MILLER, of course, was talking through a liquor haze, but Cardwell reasoned that he was familiar with the mountains and knew what he was saying. King-Pin was aware that on an ordinary train the air brakes hold for a long time before leaking off. He reckoned, too, on Number 13 coming shortly. He decided that he could bring the passenger train up the hill to hold his cars if anything should happen to the front end in doubling.

And so, obeying the conductor's order, Cardwell left his train with only two brakes set and went flagging; although, as he said later:

"It never pays to gamble on what's going to happen around a freight train. Gambling on such things is what causes railroad wrecks and snuffs out human lives."

So he went down the hill a quarter mile, laid two torpedoes on the rail, walked halfway back and laid another. He waited twenty minutes. Number 13 should have been here five minutes ago. The engines should be coming for the train.

King-Pin listened carefully. Not a sound did he hear save the whisper of wind and the weird howl of a wolf up next to timber line. Number 13 was not coming because, though the young brakeman did not know it, Maguire had hit a wagon on a crossing. The engines were not coming, because when Beefy Miller arrived in Summittville he had found the house tracks full of dead freight and both passing tracks blocked with freight trains. The conductor could not come until he switched out a place to put his ore cars.

Cardwell waited another ten minutes. Air was leaking out of brake chambers. When enough had leaked out the train would start rolling. It might not stop until it had hit something. Unless Maguire or Miller came shortly, the youth would be forced to leave his flagging station, return to the train, and set brakes on it.

There would be no particular danger, because he could stop the engineer with a torpedo. He thought he should go now; then he remembered that Beefy Miller had explicitly instructed him to let them alone. He damned Miller, and told himself:

"Next time I stop a train on this hill, I'm going to set plenty of brakes before I leave it. The conductor can go soak his head in a snowbank," or words to that effect.

Other minutes passed. The cold stabbed through his thin coat and unlined mittens. Cardwell was walking now, up the track and down; but he wasn't doing it only to keep warm. He was thinking: "Why doesn't Thirteen come? What could have happened to Beefy?"

He looked at his watch. They had been gone thirty-six minutes. Reason told him that many brakes would still be holding. Some of them would hold all night. But hunch kept whispering: "You'd better go. They might start rolling."

HUNCH won the argument. Cardwell stuck a red fusee in the end of a cross-tie—that would hold Maguire for ten minutes. And he left one

torpedo on the rail as a stop signal in case the passenger train came before he returned. Then he ran up the track.

He went through the caboose to get a club. Feet and hands were like icicles, but he did not stop to warm them. He grabbed up his club and hurried out.

Air had already leaked off the first four cars he tried. That did not look good. Maybe it had leaked off all of them. He set the brakes quickly and tightly. When he was kicking the dog into place on the last one, he heard a locomotive whistle down the hill. Bob Maguire was coming at last with Number 13!

Without waiting to set another brake, Cardwell jumped off and started sprinting back to meet the passenger train. He intended to flag it, and bring it up against the rear end without stopping. That would eliminate the danger of the runaway.

As he was passing the caboose he heard another engine whistle up the hill. Miller was coming now, and coming fast.

Cardwell did not stop. He hurried through the cut and around the sharp curve to meet the passenger on the long tangent below. Maguire was roaring up the hill with his four coaches. The engine was sending showers of sparks high into the veil of snow.

The fusee which Cardwell had left burning had gone out now, but he was carrying his red lantern. Maguire saw it, whistled for a signal. Cardwell signed with the white light for him to come ahead. He answered the signal, but did not shut off steam.

While King-Pin was waiting for second Thirteen, Miller brought the engines against the train, misjudged speed and distance, and let them hit with a resounding smash. Cardwell heard them hit and he breathed a prayer; for he knew that if the coupling failed to make there was trouble on the hill.

He waited breathlessly, listening for a sound. Almost smothered in the roar of the passenger exhaust a few hundred yards below, he heard the rattle of brake beams, followed a second later by the quick, frantic cry of the whistle up the hill calling for brakes. He knew then that Beefy had failed to make the coupling—*and twenty cars were rolling down the hill.*

Cardwell had heard wild tales of runaway cars but had never seen one. He started running up the track, intending to try to stop them with hand brakes. He ran maybe a dozen yards. The passenger train was pounding the rail twenty car-lengths below him, running twelve miles an hour. He stopped and ran to meet it.

BOB MAGUIRE was a trained mountain man. He was always on the alert. In those days, when an engineer saw a red light on Packrat Mountain—especially on Christmas Eve or Fourth of July—he kept his eyes peeled to catch somebody else's blunder. He saw Cardwell's light start toward the train and start back; and a second later he saw a red fusee burst on the night, swinging first a washout stop sign, then a frantic back-up signal.

Maguire had seen twenty trains get away doubling the Packrat during his fifteen years working over it. He guessed immediately what had happened. He knew he was in a tight spot. The lives of four hundred people hung on the decisions he would make within the next sixty seconds.

He stopped his train and watched the fusee swinging the back-up signal as the flagman came sprinting to meet him. Looking beyond the fusee, he saw a pair of red markers come out of the

cut. They were moving but not fast. He read in the fire on the wheels along the drag that *some* brakes were holding, but not all of them.

Cardwell threw away the fusee and stumbled into the cab. Gripping the engineer by the sleeve, he cried: "We're running away, Bob! We were doubling the hill—"

"And left the train with no brakes on it," Maguire cut in scathingly.

"There's some, but when the engines hit—"

"How many cars you got up there?" The engineer was standing on his platform, measuring distance, estimating the speed of the markers coming to meet him.

"About twenty. For God's sake, back up and get going before they hit you! I'll grab on and try to stop them."

Maguire was not flustered. He had no intention of staging a race with the freight cars. Releasing his train brakes, he went recharging his line, while holding the four cars with his driver brakes.

Without removing his eyes from the markers, he said gratingly: "You ain't on the Kansas prairies now, Cardwell. We don't stop cars on Packrat Mountain once they get going. Go out on that pilot and set the knuckle. If they ain't coming too fast, I can stop 'em with my train brakes—provided I can catch 'em without wrecking me."

King-Pin left the cab, going to the pilot. Maguire watched the caboose. Swaying and rocking gently as it picked up speed to ten miles an hour, it was bearing down upon him. He kicked off his driver brakes, reversed his engine and went working steam.

Cardwell had pulled himself together and was railroading once more. He set the knuckle and swung across to the right pilot step to signal the engineer as the caboose came on.

Beefy Miller was in the game now, cold sober. He was out on top of the ore cars, shuttling a club as he had never used one before.

The gap closed between the pilot and the caboose, rapidly at first, then more slowly as the passenger train got under way. When they were six feet apart, Maguire touched his brake valve. The drawbars came together and locked. A second later, when he caught Cardwell's signal, he used emergency air.

WHILE they were stopping Cardwell returned to the cab and Maguire began asking questions. King-Pin did not blame the others. He explained without going into much detail that the engines had been gone longer than they had figured and the air had leaked off.

"Where was your swing brakeman?" Maguire demanded. "Why didn't he tie 'em down?"

"He was taken sick coming into Trinity—"

"Don't make me laugh, Cardwell! You mean he got *drunk* coming into Trinity, and you tried to do his work and yours, too." The brakeman shrugged. The engineer continued: "What I can't understand is why you didn't anchor those cars before you left them. You've been railroading long enough—"

Cardwell did not answer, because Beefy Miller came into the cab then, blustering and storming. Fright had neutralized the liquor in him and he was using his head to think with. Probably he was remembering that other conductors and brakemen who had let cars get away on Packrat Mountain didn't work there any more.

He tore into Cardwell. "What in blazes," he demanded, "do you mean goin' off and leavin' a cut of cars on

this hill without brakes on 'em? I thought you'd been railroadin' long enough that you wouldn't need a conductor campin' on your trail like a green student."

"You know damn well why I didn't tie that train down, Miller," the brakeman said coldly.

Maguire looked at the conductor and then at Cardwell. He knew both men pretty well. He had a hunch then what had happened. A moment later he discovered his hunch was right.

As they were coming down from the cab to join the passenger conductor, who had come to stand on the ground below them, Miller said: "The last thing I told you before I went to make that cut was to set plenty of brakes on this hind end before you left it."

Cardwell whirled and faced the conductor. "You're a liar!" he said tensely. "I know what you told me, and so do you."

Beefy dropped his lantern and squared off to fight. King-Pin stood facing him chin to chin.

Maguire thought of several things during the next ten seconds. He thought of Cardwell's boy and the woman whose life probably depended upon his holding this job until she recovered. Right now they were probably waiting around the Christmas tree which the neighbors had brought in, and wondering when Daddy would be home.

He looked at the big beefy conductor, whose face was flushed with booze and anger, and guessed that whatever might have happened, Beefy Miller would try to saddle the blame on the new brakeman and clear himself.

So he said: "Wait a minute, fellows! Fighting isn't going to help you out of this spot. If Scooby hears about this deal, he'll fire *both* of you. You can't alibi to Scooby. You know that, Miller."

Miller admitted it.

"All right," Maguire continued. "A man's justified in forgetting little things on Christmas Eve. There's no damage done. You fellows grab these cars and hightail it out of here, and we'll forget to say anything about it. What do you say, Browning?" He turned to the passenger conductor.

Browning was cautious. If he did not report the affair and if someone else tattled, he himself would be severely disciplined. Maybe discharged. So he hedged.

"There's four hundred people in those four coaches. There may be an official or a spotter among them. We never know. I'd like to help the boys out, *but*—"

MAGUIRE kept urging while the freight men got on their train, pumped up their train line, and prepared to move. He was not pleading for Miller, because he knew that sooner or later Miller would get what was coming to him. His kind always did. He was pleading for Cardwell.

At length the engineer won his point. Browning and the rest "forgot" to report the accident. They risked their own jobs to save Cardwell's, but it was Bob Maguire who took the lead. Cardwell remained on Packrat Mountain.

It was that favor—that willingness on the part of Maguire and his conductor to risk their own jobs in order to save his—which kept King-Pin on the mountain and gave him a new chance in life. Sure, he never asked them to do it. Years later Maguire remembered that he hadn't. Neither did Cardwell ask the Maguires to help out during those hard weeks which followed.

But they helped out just the same. Mrs. Maguire spent hours in the brakeman's home. She had Bennie Cardwell up at her house under pretext of wanting him to play with her own son, "Shorty." She took care of the lad while his mother was resting, and gave him milk and eggs and beefsteak until his dad was earning the money to buy them himself.

With encouragement and nursing, Mrs. Cardwell was soon back on her feet, apparently as well as ever, making her smart, attractive little self congenial to the wives of the local rail officials.

Cardwell remembered for a long time, especially during those first years while he was down, fighting his way toward the swivel chair. For King-Pin had ideas and ambitions. When he had gotten a grip on himself and begun making good, he lost no opportunity to prove his worth to those who could help him to climb.

THEN came the World War, when William G. McAdoo was Director General of Railroads. The Cardwells had long since moved from the cheap side of the tracks to dwell among the people who ran Bagdad. When business picked up, King-Pin went running regularly in freight pool. In making up his crew he had maneuvered to secure efficient brakemen willing to hit the ball. Soon he was showing the rest of the boys how to get freight trains over the railroad.

Bagdad was an important junction. Main lines ran five ways out of it, and traffic was heavy. The first snows came and caught the Pacific Eastern unprepared for the prolonged rush of traffic. Before they knew what was happening, the yards were blocked so tight it was taking eight hours to put a car of wheat through them, and crews were making three hours' overtime waiting at the Bagdad switches for the yards to clear tracks for them.

One night Cardwell came in around 6.30 with Bob Maguire pulling him. They had staged a grandstand run with the *California Merchandise.* When they came down out of the Packrats, however, they overtook a drag tied up and waiting for a track to pull into. Cardwell brought his bills over to the head end and climbed into the cab to visit with Maguire. They got talking about the cause of delays.

The engineer figured it was lack of power and trackage. "If they'd lengthen these yards," he declared, "build more tracks and buy new engines, there wouldn't be any of this fooling around."

"You're wrong, Mac." They were Mac and Card to each other then. "It isn't lack of power, nor it isn't lack of trackage. It's lack of brains in the yardmaster's office."

The hoghead chuckled. "Maybe," he said dryly, "they need a boy named Cardwell to show 'em how it's done."

"Believe me, I could show them! I could clean up that mess in one eight-hour shift, have traffic moving through there in less than half the time they're using now, and have a clear alley ready to shoot these freight trains down without having to wait all night."

Maguire looked to see if Cardwell might be kidding. He wasn't. He was in dead earnest.

"If that's the case," the engineer suggested, "why don't you go down and talk to the super."

Cardwell said: "Aw, Scooby wouldn't listen to a freight conductor."

"He'd listen to *me,*" Maguire replied.

"Oh, would he?"

"Yes." Maguire nodded. "I used to pull Scooby when he was running a freight train down in Arizona. And if you're sure you can put that job over, we'll go in and talk with him."

Slave Driver

BOB MAGUIRE talked to Scooby. The super gave Cardwell his chance. When he took charge at 8 P.M. the next day the yards were blocked so tight you couldn't put a baby carriage through without sawing it by. Cardwell made a few engine changes, fired a switchman or two for not hitting the ball, and by 2 A.M. he had the fast freight moving. When he went off duty at four he had two clear tracks ready for the merchandise trains due in at 4.30—the first time in three weeks.

King-Pin never made another trip on the road. He worked night shift for awhile, then was promoted to general yardmaster. Maguire did not see much of him after that, for Cardwell now had little time to waste on friends who could not *pull* him higher. Occasionally the engineer would meet him out in the yard sizing up a situation or giving curt instructions to his serfs. There would be a lift of the hand, a nod of the head, and a word of greeting. That was all.

Cardwell had never been popular with the fellows on the line. He was less popular with the men who worked under him in the yards. They dubbed him "slave driver" and meant it. They caricatured him on switch shanty and washroom wall as "Simon Legree" driving poor switchmen through the snow storm with a blacksnake whip. He did not appear to mind what they thought or said; and from the time he took charge of the yards, road crews entering Bagdad never made another hour of terminal overtime due to congestion.

After the war Cardwell was called still higher. He went to an eastern division as assistant superintendent. Maguire did not see him for several years.

During those years his son Bennie went to college and took up aviation. Bob Maguire's Shorty played four years' high school football, came out with a diploma, and wanted to go braking. But railroads were not hiring brakemen then; they were laying them off. Shorty filed an application in Bagdad, and did odd jobs around town while waiting for the board to move.

At length the oil fields opened up on the prairie district east out of La Rosa. The Pacific Eastern built branch lines in; and King-Pin Cardwell, pinch hitter in the traffic jam, was placed over them as assistant superintendent. During the summer rush, word leaked into Bagdad that Cardwell was hiring brakemen.

Shorty Maguire heard the news. Aware that his father had helped Cardwell to his start in life, he told Bob: "There's my chance, Dad. Mr. Cardwell will hire me, if you'll go to Glendale with me."

Maguire was not too sanguine. He knew the Pacific Eastern was giving preference of employment to men cut off from other divisions. He knew also that when it came to a showdown, the employing official could stretch a point and hire whom he pleased. Remembering only the Cardwell of old days who had protested gratitude for favors rendered, he took the first train out for Glendale; and Shorty went along.

The aging engineer presented himself alone at the office. Cardwell surrounded by that cold wall of reserve which busy men build up to protect themselves from the near approach of friends who cannot lift him, shook hands and said:

"I'm glad to see you, Mr. Maguire. Won't you please be seated?"

Maguire understood at once the significance of that word *mister*. The old days of "Mac" and "Card" were gone. New power was behind those keen, calculating eyes—power which had not been there that night on Packrat Mountain when Cardwell had let the cars get away from him and Maguire had caught them with a passenger train before they wrecked him.

THEY visited, but King-Pin kept watching Maguire with that "Where's-the-ax" expression in his cold eyes. At length Maguire asked about Bennie, wanted to know where the boy was, and how he was doing. That melted the frost in the official eye, and started him passing the cigars.

"Bennie," he said proudly, "is flying the Denver mail plane now."

"I knew he had taken up aviation," Maguire replied earnestly, "but I didn't know he was flying the mail."

"He is," Cardwell answered. "Doing well with it, too."

"Rather dangerous, don't you think?" inquired Maguire.

"No more dangerous than railroading was when you and I took it up, sir. I think the air is the opportunity of the present age."

When Cardwell went looking at his watch, Maguire quit visiting and asked about the job for Shorty. The official deliberated a long while. Then:

"I'm sorry, Mr. Maguire," he said gravely. "I'd like to help you out, but we have been asked by our general manager to use men cut off the boards on other parts of the system. Until they are all returned to service—"

"I understood such was the case, sir; but I know that on other divisions they are hiring new men—"

"That may be true, Mr. Maguire; but I do not feel that I can afford to do so. You see, railroads have been hard hit by the depression. We are seeking to trim expense on every corner. Our experts have figured that in delays, split switches, damaged equipment and the like, it costs a thousand dollars to educate a brakeman. When we hire men whom we have already educated, we eliminate this expense. I think you understand, Mr. Maguire."

Maguire understood *perfectly*. He and his son returned to Bagdad, and Shorty went driving a freight truck on the highway which winds around the iron of the Pacific Eastern.

Always Bob had been one of those rollicking runners who get a kick out of their railroading. He liked nothing better than to catch the Limited or the Express out of Trinity thirty minutes late and make it up on the eighty miles into La Rosa. He would chuckle and crow about it for a week; and if he happened to scrape the paint off a highway truck or two in the race, so much the better.

The engineer had always considered highway trucks as trespassers upon the sacred domain of the iron. Although he had never hit one, he felt that if they didn't stop, look, and listen, it was their hard luck.

But when Shorty went driving a truck, the picture suddenly changed. The boys didn't pay much attention to it then, but they remembered it later. Bob Maguire began taking notice of those eight highway crossings between

Trinity and La Rosa, whistling a little more loudly, keeping a sharp lookout for approaching cars, and slowing for them if his vision was obscured by dust or fog or snow. It was unfortunate that this change in attitude came just when it did, for it brought him on the mat before King-Pin Cardwell.

A LITTLE while after Shorty Maguire went trucking, Cardwell was promoted to superintendent of the Mountain Division.

The Pacific Eastern was speeding up its traffic to meet highway and airplane competition. Each new timecard off the press was cutting schedules on its fastest trains. Engineers were grumbling, saying that track and rolling stock could never stand the pace. It was to eliminate delays on the Mountain Division that King-Pin Cardwell had been placed upon its throne.

His first official act was to post a bulletin addressed to train and engine men. It read in part:

> It has come to our attention that limited trains have been losing from thirty minutes to an hour on the four districts of the Mountain Division. Hereafter, crews in charge of such trains must see that schedules are maintained unless unavoidably delayed.

Some of the passenger runners welcomed the new regime of speed. A few years before, Maguire would have done so, would have run the wheels off an engine making up time if a superintendent had suggested it.

Others, however, especially among the older, more cautious set, thought they knew more about safe speed on the track where they had spent half a lifetime than any committee of experts juggling figures on degree of curvature, elevation, height, weight, and speed. They were cautious in speeding up beyond their traditional running rate. Soon they were receiving "Please-explain-delay" letters from Supt. Cardwell, letters which were very hard to answer.

It was two weeks before Bob Maguire got one. He had been lucky in catching his trains on time. Then one morning, he caught the *Chicago Express* thirty minutes late out of Bagdad. He had an order reading:

> No. 12 eng. 1044 run thirty minutes late Bagdad to Trinity, twenty minutes late Trinity to Clive, and ten minutes late Clive to La Rosa.

Such an order meant, of course, that he was expected to adhere to regular schedule through the mountains where speed was restricted for safety on the heavy grades. But between Trinity and La Rosa he was expected to make up twenty minutes on eighty miles.

Not so long ago Bob Maguire would have chuckled. He would have stuck the order in his overalls and said: "All right, Mr. Cardwell! We'll make up that twenty minutes."

That morning, however, he said nothing. He made his time to Trinity. He arrived there thirty minutes late, just as he had been leaving Bagdad.

A fine mist was falling east of the mountains. The rails were wet and so was the highway which crossed his tracks eight times in eighty miles. Trucks and automobiles were skidding on pavement and plowing through mud and water as he passed them by.

Maguire did not make up the twenty minutes going into La Rosa. In fact, he did not make up one minute. Instead of coming down on those mist-curtained highway crossings sixty or seventy miles an hour, he held the fifty pace called for in his schedule. He was certainly not worried about Shorty

then, for Shorty was three hundred miles away.

Still, not even the "make time" message handed him at Clive caused him to quicken his pace. When he arrived in La Rosa, thirty minutes late, he received his first curt message from King-Pin Cardwell. It read:

To Engr. Maguire. Please explain delay Trinity to La Rosa.

He read the order, frowned, and stuffed it into his pocket. Striding over to the counter, he wrote a reply:

No delay Trinity to La Rosa. Made schedule running time.

HE HEARD no more about the matter then, and reckoned he had hushed Cardwell's mouth; but a few days later he saw the new super's business car parked on the spur down by the passenger station when he brought Number 11 into Bagdad. While he was eating lunch the boy rang up to say that he was to report to Mr. Cardwell at 1.40.

Cardwell greeted him from behind that wall of reserve, just as he had done in the office in Glendale, saying: "How do you do, Mr, Maguire?" and "Will you please be seated?"

This time there was no preliminary visiting. The busy official produced a copy of the order delivered to the crew the day Maguire had made the run on Number 12, and produced also capies of his own message and that of the engineer.

"I fail to understand your reply to my message, sir," he said sternly. "As I see it, there was a delay of twenty minutes that day."

"I made my running time, sir," argued the hogger in dismay.

"You made scheduled running time, Mr. Maguire. But you are aware that regular schedules are so constructed that a few minutes lost time may be made up on each division if necessary. Your scheduled running time between Trinity and La Rosa is under fifty miles an hour. Our maximum speed for passenger trains between those two points is seventy-five, except on a few curves. For you to have made the time allowed you on your order, your average would have been slightly less than sixty. Why didn't you make it?"

"It was raining, sir," Maguire alibied. "The rails were slick and I did not consider it safe—"

The official lifted a hand and smiled wisely. "As I remember, when we worked together here fifteen years ago you did not worry particularly about slick track. You made the time, didn't you?"

"Yes, sir." Maguire smiled just a little as he recalled some of those fast runs on freight which he had made before the World War.

"Then why do you refuse to run *for* me as you used to run *with* me?"

Maguire did not explain that, very recently, drivers of highway trucks had become human beings in his sight—human beings who might err in judgment, instead of fools who refused to look or listen.

He answered lamely: "With weather conditions as they were—"

The super stopped him. "Don't blame weather conditions, Mr. Maguire. There is some other reason for your changed attitude. Your record prior to my coming shows that you were often doing seventy or seventy-five miles an hour up to within a few weeks of that time. Is it that you resent my coming here as your superintendent?"

"Oh, no sir," the hogger answered quickly. "I've always felt kind of proud

He Saw an Oblong Shadow Looming In His Headlight

of you, proud you had come from our district."

"Then the only other excuse I can plead for you, Mr. Maguire, is that you have suddenly decided you were growing old. Is that it?"

Maguire shrugged. "Maybe that's it, Mr. Cardwell," he said grimly. "Maybe I'm getting old."

Cardwell's eyes bored through Maguire. He knew Maguire hadn't changed in a few weeks for that flimsy reason. It must have been then he jumped to the conclusion Maguire was resenting his coming.

"If that's the case," he said, "perhaps you'd better mark off passenger and take a switch engine or a job on a branch line. I'm not so sure but that the service would benefit greatly by several such changes in personnel."

MAGUIRE did not take the advice, though he wished during the lean months which came not so long afterward that he had done so. He continued working in passenger pool; and from that time on, no matter what the condition of track or weather, when he had a make-up order he obeyed it.

He was an hour late that night in the winter, an hour late with the *Chicago Limited,* when snow was swirling over the foothills. It was not a

heavy snow. Just a thin trickle of white falling from a leaden sky which reduced visibility to five hundred feet, and in places even less.

Shorty had eaten supper at home that evening and had left for Denver with a ten-wheel trailer truck loaded with vegetables. While they had been eating, talk had turned, as it did in most railroad homes, to railroads and their problems.

Some of the other lines had been experimenting with fast Diesel-powered streamlined trains; and it was rumored that the Pacific Eastern would try one out the following summer.

Bob said: "If they go running those babies and make a success of it, railroads will soon be hiring men again."

"Bulleve me," Shorty exclaimed laughingly, "I'll be darned glad of it. I'd be tickled to death to get off this truck and into a cupola or engine cab where my hours and pay are controlled by Brotherhood schedules instead of by the whim of a boss who can hire and fire his men at will."

The limited left Trinity at 9.40 P.M. with another of those "make-up" orders, only this time it permitted him to make up thirty-two minutes instead of twenty. Stung by the sarcastic comment of the super, Maguire was stepping along at seventy-five when he whistled for the crossing by the east switch at Clive.

He always whistled long and loud for that Clive crossing. The track was straight as a die for five miles in both directions, but there was an emergency airplane landing field just above it; and if a plane happened to be taking off, the roar of its motor drowned the sound of his whistle and bell. The engineer whistled more loudly than ever that night, because he could not see three hundred feet through the snow and he knew a driver could not see him.

He approached it leaning far out of the cab, as he always did. When he came in sight of it, he saw what appeared to be an oblong shadow looming in his headlight. In less than a second he knew that, instead of shadow, the thing was substance. He saw it was the body of a trailer truck, all plastered with falling snow.

Instinctively he used emergency air, but even while using it he realized it was too late. He was covering a hundred feet a second. The truck was barely moving. The cab and part of the body had already cleared, but he knew he was going to hit it. He was aware, too, that he was going to hit his own son, because he recognized the truck as one which Shorty had parked in front of the house while eating supper.

He dodged down behind the boiler head when the steel pilot bar cornered the trailer. The heavy engine reeled and staggered. Splintering pine swept her left side. A lone cabbage head hurtled like a bomb through the cab window and four ripe tomatoes plopped into the deck.

For a few seconds Maguire thought he was going into the ditch. Then the locomotive righted herself and, bathed in a cloud of steam from broken pipes, came to a stop a half-mile below the crossing.

The hand which thrust the torch into the firebox and brought it out was trembling. The knees which carried him stumbling toward the trailer lying against the embankment were weak and wobbly. The voice which wondered "why in the devil that boy of mine didn't stop and look before he climbed up on a railroad track," was high-pitched and anxious.

Shorty had already pulled himself out of his truck and was stumbling

around taking stock of the damage. He said: "For gosh sake, Dad! If they want you to fly these danged passenger trains, why don't they knock off the drivers and put wings on? How fast was you running, anyhow?"

"I was doin' about seventy-five."

"You must have been. I stopped and listened before I started over, but I didn't hear a sound; and I'll swear to glory I didn't move ten feet from the time you come in sight till you hit me."

Maguire and his conductor secured data on the accident and went on to town. Shorty called the company offices and had them send down another truck to take his load on in—that is, the part that wasn't scattered over the right-of-way for the next quarter-mile.

That wreck cost Shorty his driving job. Although he contended—and proved — the train had been running seventy-five miles an hour, the company fired him. Unable to get other work in Bagdad, the youth thumbed his way out to California. After a long time, he went driving a truck which serviced the planes at the Inter-Mountain Air Terminal. There he worked until Christmas Eve two years later.

IN THEIR campaign to cut expenses the railroads had established a system of book-keeping on men and machines. They kept records of fuel consumption, locomotive performance, accident prevention, and the like, and merited their men who stood at the head of the list.

Cardwell plunged heart and soul into this campaign. He even went a step farther and went cutting corners where there was no need for it.

In his struggle for power and prestige, he apparently forgot that he had ever struggled for existence. With no more feeling for their need than the steel rails he ruled, the super began weeding out the old men before their pensions should come due. Of course, he had a reason. The Brotherhoods would not have stood for his cutting them off without cause, but with those old ones he showed no mercy.

From the time Bob Maguire sat on the witness stand in the damage suit and told the judge he had been running seventy-five miles an hour when he hit the truck his son was driving, Cardwell appeared to have it in for him.

The road almost lost the suit through his testimony. Maybe that was the cause of official resentment. Or perhaps the sight of the aging engineer was a constant reminder to the superintendent that he was proving himself a heel. No one knew which. But Cardwell rode him mercilessly.

Maguire had never been the prize hogger of the Mountain Division, but he had been a good man. He had seldom been called into the office for reprimand, but in the year after he hit the truck Cardwell had him in a dozen times. Once a lounge lizard in a Pullman wrote him up for rough-handling a passenger train. Another time he was in for not making schedule on the hill with a high-wheeled engine, coming over the pass in a snowstorm.

Mostly it was because he was not making the required showing on King-Pin's program of fuel conservation and locomotive performance. That was not Maguire's fault, but he got the blame.

His fireman was a wrinkled old buzzard who had run an engine twenty years and was back on the fireman's board now because he had tried to be a boomer. This fireman was a sore-head and a back number. He thought black smoke and a howling pop valve proved his manhood and his efficiency

as a fireman. He refused to listen to Maguire, but Bob would not squeal.

Cardwell scolded the engineer, demerited him, and even threatened to fire him. He acted, Cardwell did, as if he thought Maguire were deliberately refusing to co-operate because of jealousy. Not once during their tense sessions did Maguire remind his superior of past favors nor ask for special consideration. He took his demerits without a murmur.

ONE winter morning after Shorty had been gone a year, Maguire was called for Number 12, the *Chicago Express* east. While he and his wife were eating breakfast, they fell to talking about Cardwell. Most of the railroad folk in Bagdad were talking about Cardwell, and not saying anything to his credit.

Mrs. Maguire said: "It makes me mad every time I see him strutting down the streets. To think that after all we did for him, he wouldn't return one little favor by giving our son a job. If only Mr. Cardwell had hired him then, he might have been braking here now instead of out rambling around."

"I wouldn't worry too much about the boy," Bob returned. "He'll come home when he gets tired running around. And I wouldn't blame Cardwell, either. You see, King-Pin has his own interests to look after—"

"I'll say he does. That's the way he's got where he is now—looking out for his own interests and forgetting the friends who helped him get a start."

"We wasn't expecting him to return any favors when we were helping him back in nineteen-fourteen, Martha."

"No, but he might have done it. You would, Bob, if you'd had the chance."

"Maybe I would," sighed the old engineer, "but I'm not Cardwell."

Maguire got away from Bagdad at 7.45. He had rights over everything—except the *Flying Swallow*. The *Flying Swallow* was the new Diesel train with which the Pacific Eastern was experimenting. She ran one day a week. She was superior to all other trains and they were expected to clear her by twenty minutes, because when she was running a hundred miles an hour, it required nearly two miles for her to stop after the brakes were set.

From that day on, when the *Swallow* was on the iron, the dispatcher always put out an order reading: "No. 25 runs today." He gave a copy of that order to each train crew, so they could not forget it.

But Bob Maguire had no such order. He had his timecard. He was expected to mix that timecard with a little brains and keep out of the way of superior trains.

Bob's brain must have been busy elsewhere that day, for when he left Bagdad he did not remember it was Thursday—the day for the *Flying Swallow*. Nobody reminded him of it. He left town with the thought in mind that he was riding the express, that he was on time, and that he had *nothing* to look out for.

He went over the pass and at 10.05, was streaking down toward Delhi, making up a couple of minutes he had lost taking water and filling grease cups in Trinity.

Delhi was regular meeting point for the express and the *Swallow*. Every Thursday the express took siding there to let the Diesel streak by. Bob did not head in there every week, because he caught the Express only one day out of eight.

He whistled for Delhi. He did not whistle a meet, because instead of

thinking about the *Swallow* he was thinking about Shorty and Cardwell, wondering where the boy was, and wondering whether the super would fire him before he got his pension.

The conductor and his brakemen were not thinking about the *Swallow,* either. They were arguing about bank night at the motion-picture houses, loudly declaring the whole thing was a graft, a bait to toll hard-earned dollars away from simple folk who could not see through them.

So they thundered by the siding a mile a minute and raced down toward La Rosa. Grizzled, sore-headed Fireman Davis was sitting in the cab window watching the black smoke roll. He turned his head to call across to Bob that there sure'n hell wouldn't be any argument about black smoke on these new-fangled Diesel trains.

But instead of saying that, he jumped into the deck flopping both wings and shouting: "Stop 'em, Bob! Fer God's sake! Stop 'em!"

The hogger looked around in mild surprise. "What's the matter with you? I don't see—"

"This is Thursday, Bob. *Thursday!*"

THE engineer didn't need to ask what difference Thursday made. He shut off steam and started sloughing air.

He did not use emergency. There was no need of it, for there was no immediate danger. He had plenty of time to stop and back into Delhi, because Number 25 was not due out of Bently for eleven minutes. He brought his train to an easy stop, whistled a back-up signal, and started crawfishing toward the switch.

He was nearly two miles below Delhi switch when the train stopped. The Denver mail plane came flying over while he was releasing his air and backing in. He scarcely noticed her, did not observe that she dropped down two thousand feet in passing, and never for an instant dreamed that her passage would affect him until days afterward.

When finally he had his train in the clear where she would not throw caution boards ahead of the *Swallow,* he went down to the ground to meet the rest of the crew. A pretty crestfallen bunch they were. Frank Ball, the white-haired conductor, looked as if he'd just buried his last grandmother, muttered:

"I sure hate to report this."

"Report nothing!" rumbled the hogger. "If ever we report this to Cardwell, we're all done railroading."

"But why?" interrupted the brakeman who had not yet thought the thing through. "We haven't delayed a train. We come alive and got in the clear before we met them—"

"That don't make any difference," growled Bob. "We had no right beyond that switch. If we ever tell the super that we got down here and backed in, he'll fire the whole bunch of us. We've not got any passenger to spill the beans on us. We've not even got an express messenger, thank the Lord! If we keep our mouths shut Cardwell will never know it."

But Cardwell knew it. Four days before Christmas, when Bob and his crew were patting themselves on the back and telling each other how lucky they had been to pull the stunt and get by with it, Cardwell called them into the office.

"I believe," he said coldly, "you gentlemen were in charge of Number Twelve on the morning of December seventeenth. Is that correct?"

The bottom fell out of Maguire's stomach and his heart went through

to his shoe soles. Frank Ball almost fainted. Both of them were too old either to find another job or to learn a new way of making a living.

Bob Maguire looked the super in the eye and answered for the crew: "Yes, sir, Mr. Cardwell. We were."

"Thank you, Mr. Maguire. Now will you please explain why your train was down on the main line two miles below Delhi at 10.17 that morning instead of in siding where it belonged."

"Two miles below Delhi?" Maguire was not certain whether the official *knew* things or was only guessing. He tried to look innocent, but didn't have much luck.

"*About* that, Mr. Maguire," returned Cardwell. "It is difficult to judge distances on the ground from an airplane, but it appeared to me to be approximately that."

BOB breathed six times. He remembered then that the Denver mail plane had gone over while he was backing in, and guessed that King-Pin Cardwell had been flying with his son. He said fearfully:

"We overlooked our hand, Mr. Cardwell. We forgot it was *Swallow* day until we were by the switch."

"Forgot, huh!" The swivel chair squeaked. Cardwell lighted a fresh cigar, blew out the match, and laid it carefully on the tray. "Mr. Maguire—Gentlemen—This company pays you good money to *remember,* not to forget." Another pause. Then: "I presume you also forgot to report the fact to my office as required by rules."

The Western Union clock measured off seventeen tense seconds. Bob Maguire's breathing grew more labored. In all the months since the super had been riding him, he had never once referred to those forgotton favors which he had rendered during Cardwell's first winter on the Pacific Eastern.

He fought to restrain himself now, but finally he blurted out:

"Mr. Cardwell, if I remember correctly, twenty years ago on a Christmas Eve, five men forgot to report the escape of a cut of cars on Packrat Mountain—"

The rest of the crew looked from the hoghead to the super. For the first time they were hearing of that old blunder.

Cardwell laid down his cigar and struggled hard to control his emotion. Then he answered:

"I have not forgotten that occasion, Mr. Maguire. The memory of little affairs like that remain long with one, even with a railroad official. But I cannot permit it to influence my decision in this case. You gentlemen may turn in your equipment and draw your time."

Maguire did not say a great deal. He eyed the slave driver and said reproachfully:

"If this had been *reported* to you, Cardwell, and in such a way that you would have been forced to take some action, I should have had nothing to say; but since you came by your knowledge of it the way you did—since nobody need ever have known of it but you—I should think you might at least have forgotten it."

"A railway official forgets nothing, Mr. Maguire," was the icy rejoinder.

"Nothing except a favor, Cardwell."

Bob led the way out of the office. He had blundered. He would pay.

IT WAS a year before the old engineer again saw Cardwell, one of those years which alter human life and set it in new channels. He sold his mortgaged home and bought a fill-

ing station at the junction of the two arterial highways east of Clive—at the crossing where he had hit Shorty's truck about a year before.

He'd had his eye on that filling station for a long time, and knew by the number of cars driving into the place that it was a money maker. In fact, he had often told his fireman:

"When I get too old to railroad, I'm going to buy me a joint like that and get rich off of it."

But being a locomotive engineer instead of a business man, he overlooked a few items. Clive was a passing track and a small stock loading chute. Neither the railroad nor the emergency landing field offered sale for gasoline and accessories. When, shortly after he took over the station, the highway commission moved one of the roads a mile east to put in an overpass, few automobiles stopped to fill at his pumps.

A year after his discharge the former hogger was selling a bare twenty gallons of gasoline a day. He and Martha were living in two cramped rooms behind the filling station. There was desert sand on the floor, desert sand in the bed, and desert sand on the table; for Martha had been ill five months then, and Bob was a worse housekeeper even than he was business man.

For the first time in thirty years, they were not planning a Christmas. They were planning nothing now. Shorty was their only tie into the future. Shorty was over in California now, servicing airplanes at the terminal; but he had been out of work so long that he had written the old folks he could not come home until spring.

Christmas Eve came in on a raw wind. Toward night the wind quickened and went driving streamers of white before it through the foothills. Bob went outside at eight o'clock, drained his pumps, put out his lights, and locked the station. It was snowing so hard then he could not see the switch light. Only now and then a crimson mist shone through to the west where the lights of the emegency landing field were always burning.

A passenger train thundered down toward La Rosa. Although he no longer rode them, trains were still a part of Bob Maguire's life; and keeping track of them was his chief pastime. He peered out of the plastered window and told his wife:

"The *Swallow* must be away off time tonight. The express is running ahead of her for the first time in three months."

"Snowstorm," Martha said slowly. "Maybe she's had trouble coming through the pass.

"Maybe."

Bob pulled the shade, turned out the light to save juice, and sat before the hearth with its glowing bundle of cedar sticks crackling and shooting sparks up the smoked chimney. A gust of wind shook the frame structure, while snow sifted in through the closed window.

Martha said: "If a plane tried to land here tonight it would sure crack up."

Ever since they had lived here, Martha had been worrying for fear a plane might crack up in her dooryard. She had worried even more since Shorty had gone to work at the air terminal in Frisco. To her way of thinking, every man who worked around an air terminal would sometime ride the clouds.

Bob grunted. He had lost his respect for airplanes when Cardwell had spied him overlooking that meet with the *Swallow* at Delhi. He wanted to say

that night it was too bad they hadn't all cracked up years ago; but instead he murmured:

"Don't worry about planes cracking up tonight. They're all settin' safe an' sound in their own side tracks."

Christmas Eve

THE Cardwells *planned* their Christmas. King-Pin had received notice the fifteenth of December that he was to go up to the general manager's chair the first of the year. That was the crowning glory of his life, the goal of his ambition. Maybe some day—president of the road. Who knows? Anyhow, they were planning to celebrate, not so much the birth of Christ as the rise of King-Pin Cardwell.

Mrs. Cardwell, in her upward sweep, had forgotten her first Christmas time in Bagdad. She had forgotten she had ever been ill, that Fortune had once frowned upon her, and that there were others still in the world upon whom Fortune was not smiling.

Right now she was making lavish preparations. She decorated her home in La Rosa like a palace. She ordered gifts fit for the king. She invited in for Christmas Eve a host of officials who had helped her husband on his upward climb.

Of course, they planned to have their son Bennie home with them. Bennie was the center around which the universe revolved. Without him both their lives would be only a futile dream.

Days beforehand, Bennie had arranged that a substitute pilot should fly the mail plane west in his stead on Christmas Eve, so he could be on hand to help them celebrate. But the gods who for twenty years had obeyed the every whim of King-Pin Cardwell were not listening that Christmas Eve.

When Bennie registered in at the Denver airport on the afternoon of the 23rd, the dispatcher told him:

"We're cancelling your leave of absence for tomorrow, Cardwell. We'll have to use you on your regular flight."

"But," protested the young pilot, "we have been planning—"

"Individual plans must be subordinated to the good of the service, sir," the dispatcher answered. "With unsettled weather conditions throughout our territory, and with several pilots off sick, there is no way out."

The Cardwell code put business before pleasure. That was the code by which King-Pin had risen high on the iron trail, the code by which his son hoped to rise high on the air trail. He called home and broke the news to his father.

"Then you can't be home for Christmas?" his father said.

"I think I can, Dad," the son replied. "I can go west on my regular schedule in the morning. Then I'll fly my own plane home tomorrow afternoon. I'll be there by 5.30 if all goes well."

That sounded simple enough. He took the mail in on time. Storm fingers were then groping down from the north. The Intermountain had grounded its planes. The dispatcher showed young Cardwell the weather reports, warning him: "You'd better stay here instead of going home for the holiday."

But the Cardwell code demanded that they overcome obstacles to the fulfillment of their wishes. He said confidently:

"I'll make it, sir. I'll swing south

and go around the storm. Then I'll come back up the eastern slope."

"You'll run into bad weather there, too, Cardwell."

"If I do, I'll fly over it."

"All right, Bullhead, go on! But when you're saying Merry Christmas to old man Gabriel, don't tell him I didn't warn you."

LAUGHING gaily, Bennie Cardwell went out to prepare his plane for the trip. He warmed it up and tested it in the hangar. It appeared to be in perfect condition. While Shorty Maguire was pouring in the gasoline, Bennie sauntered out to the truck for a word of greeting. He and Shorty, renewing boyhood acquaintance, had enjoyed many friendly chats since Shorty had come to work at the port. In fact, though Shorty did not know it, Bennie had gotten young Maguire his place here.

Bennie was feeling like a philanthropist that afternoon. He told Shorty: "I'm going home for Christmas, old-timer. Better come along."

"Sure wish I could," the hogger's son answered ruefully. "I've not seen my old folks for so darned long, they've probably forgotten me."

"Why don't you go? They'd like to see you."

Bennie Cardwell knew why his father had fired Bob Maguire. He did not feel exactly proud of his sire's achievement. He pointed to the vacant seat in his plane, assured Shorty he was welcome to ride in it, and promised him also that they would return west in time for Shorty to work Christmas night.

So Shorty arranged with one of the other boys to double for him that afternoon. Then he grabbed a grip and climbed in.

They took off from Frisco at 12.40 P.M. Their plane was an old mail crate which Bennie had bought and worked over into a three-seater.

The pilot lost two hours flying south around the storm. He had hoped to sneak into La Rosa east of the mountains without encountering it. But communicating with Denver, he learned shortly after dark that the blizzard was raging in the foothill country, and knew he was either going to have to give up his trip or take a chance. He decided to take a chance.

At 8.30, about the time Mrs. Maguire was worrying for fear a plane might crack up in her dooryard, her son and Bennie were heading north, making for the regular flying lane through Packrat Pass with its line of blinking beacons. Communicating with Denver then, he learned that although the snowfall was heavy through the pass, only a light skiff was falling in La Rosa.

Assuring Shorty they would make it through, the pilot went over Bagdad at 8.45, flying at nine thousand. He was at eleven thousand when he went over Trinity. He knew where he was, because he could see the beacon on Binkley's peak and two others, flashing just above the surface of the clouds. Everything was going well then. His motor was roaring along as perfectly as it had ever roared in all the year he had driven it. He expected to be home in forty minutes.

But airplanes are uncertain. Six minutes out of Trinity his motor quit cold, leaving him two miles up in the sky with a snowstorm between him and the ground, and only three blinking beacons to tell where he was.

Bennie took a bearing from the beacons. He knew he was somewhere eats of Clive. If only he could locate

that little square of red lights glowing somewhere down beyond the curtain of snow, he could glide in and land as safely as if his engine was still running. Breathing a prayer that he might find those lights instead of some hilltop or deep arroyo, he turned his plane westward and nosed into the clouds.

AT 9.02, Bob Maguire wound his watch. He caressed it tenderly. That watch was just about all he had had left to show for forty years railroading through sun and storm. He returned it to his pocket.

The moaning of the wind had grown louder. A big sign in front of the filling station rattled and banged. The room was growing chilly. He kicked the cedar chunks together and watched them smoulder, smoke, and burst into flame.

Somewhere outside there was a loud crash, followed an instant later by a jar which rattled the dishes in the homemade kitchen cupboard. Martha snapped awake and sat up in bed.

"What was that, Bob?" she cried.

"Wind maybe," the old man grunted. "Maybe that darned sign fell down."

"That was no sign falling," his wife said nervously. "It wouldn't make a noise like that."

Bob lifted the blind and peered out.

"Do you see anything?" she queried.

"Not a thing."

"Are the lights still burning?"

Bob looked toward the landing field. He could still see the crimson mist with snow swirling through it.

"Yeah. They're still burning."

"I wish you'd go out and look around. Maybe there's been a car wreck. Maybe—"

More to please her than because he expected to find anything, the former engineer put on his mackinaw and went through the station. The sign was hanging where he had nailed it. He could see nothing but swirling snow. He turned and started into the house.

When he was opening the door, he thought he heard another sound. He listened closely. Through the howling wind, there came a distinct "Halloooo!" It seemed to be coming from up the railroad track, from up toward the old boxcar set on blocks which served Clive as freight depot and passenger station. His first guess was that the *Flying Swallow* had jumped the track and ploughed through that old boxcar.

He struck out at a brisk walk. At the crossing, he turned right and headed up the railroad.

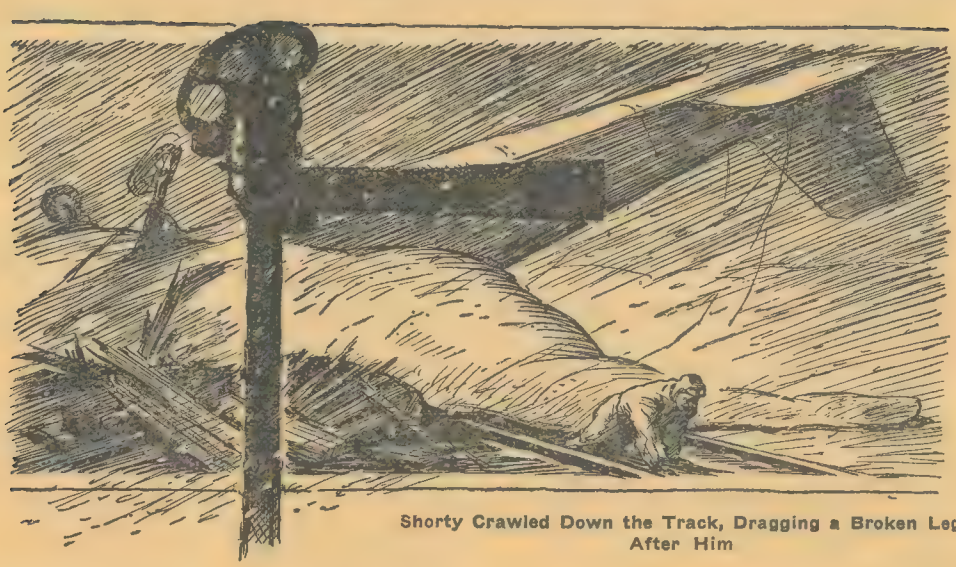
The single iron of the Pacific Eastern was equipped with automatic electric block signals. They were so constructed that when the block was clear and no train coming, the electric lights on the semaphores did not burn; but the breaking of the circuit lighted those lights, as if they had been touched by a human hand.

All the way Bob kept thinking about the *Swallow,* aware that if she were in the ditch within the mile the lights would be burning red. When, however, he came to the east headblock and saw the semaphore arms pointing to the sky but no lights burning, he knew that no train was in the block and the *Swallow* was not in the ditch.

He stopped there, intending to return to the house; but while he was wondering if he had been mistaken in the direction, he heard the voice again, tense, anxious, crying:

"Help! Hallooo! Help!"

THE old man broke into a run, racing up the track which he had ridden ten thousand times at the throttle of a roaring engine. Fifty yards



Shorty Crawled Down the Track, Dragging a Broken Leg After Him

below the station, he came upon Shorty crawling down the track dragging a broken leg behind him.

After the first shock of mutual surprise, Shorty said: "Leave me alone, Dad, and go up there to Bennie."

"Up where? Bennie who?"

In terse sentences Shorty explained that he had been flying home for Christmas with Bennie Cardwell, that their motor had failed them, and that Bennie had tried to make the landing but had missed the field and crashed into the boxcar station."

"He's up there now right in the railroad track. I can't get him out. If a train comes—"

Bob carried his son off the track, covered him with his coat, and hurried to the wreck. The crash had left scarcely two boards of that old boxcar station together. Boards were piled all over the railroad and the plane was turned bottom side up atop them with Bennie inside.

Bob did not remember then that this same plane and the man beneath it had helped to bring about his downfall. He remembered only that the *Swallow* might come roaring eighty miles an hour down that iron; remembered, too, that with snow on the iron, it would require two miles stopping room on that steep descent.

He did not lose his head nor forget the lessons learned in forty years of railroading. Aware that an open switch would throw a caution board and a red one in each direction, he grabbed a length of iron rod from the wreckage, ran to the lower switch, smashed the lock, and left the switch open.

"That," Maguire told himself, "will stop anything coming from below."

When he was at the switch he thought he should run over and tell Martha where he was going. Then he decided he ought to carry Shorty to the house and get him out of the blizzard. But realizing that a train might come while he was gone, the old fellow turned his back upon his own and went up the grade to flag the *Swallow*.

The hogger could not run as King-Pin Cardwell had run that night twenty-one years ago on Packrat Mountain. If he had not known how those block signals worked and used his

knowledge, King-Pin's son would have died that night beneath the wheels of the *Flying Swallow.*

The current which controls the operation of the signals is carried around each rail joint by two contact wires. The breaking of wires sets one stop signal and one caution signal in either direction.

When he came upon the west headblock, the signal was at caution. A train was coming. He judged she was the *Swallaw,* more than a mile away. There was still time. He hurried past the head block, carrying the piece of rod with which he had broken the lock at the east switch. He used it now to tear out contact wires.

It was almost two minutes before he heard the siren of the Diesel-powered streamliner blaring through the storm. The siren was wide open, and she was running twenty miles an hour when she went by. He gave the engineer a washout stop sign as she passed.

The *Swallow* stopped three hundred feet above the wrecked plane. When she left, she took Bennie Cardwell home for Christmas, and Shorty Maguire to the company hospital.

KING-PIN CARDWELL did not have much to say next day when he drove his limousine out to Clive to the hogger he had fired a year before. He kind of hemmed and hawed and reckoned a man never gets so high but that he can fall, nor so low but that he can rise.

Bob didn't smile when he agreed that King-Pin might be right. He toyed with the handle on a gas pump as he used to play with the handle on his air valve in running a locomotive. He looked up toward the air field and the wreckage of the plane and the boxcar station lying off to one side of the track.

Cardwell chuckled softly. "Do you like selling gasoline?" he queried.

"Don't make much difference whether a guy likes a thing or not," Mac growled, "if he has to do it."

"I've been *thinking* since last night, Mac," Cardwell said evenly.

"Have you?"

"Yes, I have. You know I'm going up for general manager the first of the year."

"Are you?" Bob Maguire was only mildly interested.

"Yes, I am. I've been thinking since last night, that when I go up for general manager, if you don't like selling gasoline you might appeal a case to my office over the head of the division superintendent—"

"I wouldn't have a leg to stand on," the hogger answered hopefully. "That's what the Brotherhood chairman told me a year ago."

"Maybe you have. Think it over."

"Thanks, Card. I will. And a Merry Christmas to you!"

"Same to you, Mac."

The general manager started back to his car. With a foot on the running board all plastered with Yuletide snow, he turned to hold out a hand.

"If you care to shake," he said, "with a man who can forget nothing but a favor—"

Maguire gripped the hand. Then he stood in the snow watching until Cardwell turned into the new highway and started up the overpass.

Faster Freight

"Waal, Making up Time Ain't No Crime. But It Ain't the U. S. Mail You're Pulling. Only a Lot o' Spuds"

By JOHN A. THOMPSON

Author of "Once a Boomer," The Engine Picture Kid Series, etc.

IT WAS about twenty-five years ago, when fast freight was more or less unknown on the American railroads, when passengers, mail and express clattered over the rails at breath-taking speeds, and when squat, chugging freight engines built only to drag the tonnage they could move crawled across the country a little faster than a fat man could run. A little faster, maybe, but not much.

It is hard to tell just how fast freight finally penetrated the consciousness of all railroad officials, but on the Maine & Midland it started because of an engine breakdown, the inevitable processes of Nature, and Riley Banks. Principally Riley Banks.

Riley was a freight engineer. Head bent forward, service cap shoved back to expose a thick, tightly curled thatch of russet, Riley walked nervously around the turntable track in front of the roundhouse at Hunton.

"Of all the dad-blasted luck!" he was saying.

"Cut it out. You'll get dizzy and fall into the ashpit," commented Jerry Greenleaf, his fireman. "It's no skin off your nose the Ten-twenty blew her piston packing."

"Yeh, but why did it happen tonight? Tonight of all nights."

Jerry gazed up at the cloudless, star-flecked sky. There was nothing wrong with the evening as far as he could see. He shifted his glance to the long string of box cars on the outgoing freight track, made up and ready to roll.

"What's the matter with it? It isn't goin' to rain," he volunteered. "And there ain't no rush gettin' them spuds down to Peterboro Junction. Potatoes will keep six months."

"It isn't that."

Young Banks' tour of the turntable rim brought him close to Jerry. He reached out for the fireman's shoulder with a nervous, shaking hand.

"Jerry," he whispered with great seriousness, "I am about to become a father. Honest." He clutched tighter at the fireman's soot-stained overalls. "It's a terrible feeling. I got a sinking feeling in the pit of my stomach."

"Maybe you're hungry," suggested Jerry.

Riley curled his lip. "No, not hungry," he assured the fireman. "All I want to do is get on down to the Junction. Mary's down there. In the hospital. I want to find out if she's all right. And if it's a boy or a girl."

"Twins maybe. Say, I know a fellow—"

But Riley turned away in disgust. Jerry was no help.

Just then Mike Mullarkey's heavy tread ground across the cinders, as the big, barrel-chested roundhouse foreman came up to the pair. He grinned openly at the distracted engineer.

"I know what you're up against, son. Ain't there sivin little Mullarkeys rompin' all over me own front porch?" He winked broadly. "We're swingin' out the twelve-ate-een. She's a fast little woman, an' it might be you kin pick up a jag o' lost time goin' down to the Junction." He paused, changed his tone. "It's your first young-un, ain't it?"

Riley nodded, eyes alight. But they were alight now with the sudden thrill of handling one of the road's newest and fastest passenger locomotives, and the unexpected chance to make up lost time running to Peterboro Junction. Even in this hour he was an engineer first.

"Do you think that engine will pull them box cars?" he asked by way of afterthought.

Mullarkey thought so.

"If she doesn't, we're highballing down the line without 'em," the engineer said as he thumped his fireman's back. "Let's talk to old Satchel-Face."

SATCHEL-FACE SMITH, conductor of the potato train, was a dour down-easter with a countenance as long as a salesman's suitcase and a nose hooked enough to simulate the handle.

"Listen," he said in response to Riley's fervent plea, "we're railroading these spuds by the book. The Maine & Midland ain't no racetrack. You allus bin itching to pull a wide throttle. That's the trouble with you young runners. All you think about is speed."

"This is the Twentieth Century," cut in Riley. "And a very special occasion, to boot."

Satchel-Face scratched his nose high up on the bridge. He was a family man himself, though his boys were all grown up now.

"Waal," he agreed finally, "making up lost time ain't no crime. And we bin hung here a half hour. But no reckless speeding, mind you. It ain't the U. S. Mail you're pulling. Only a lot

o' spuds that ain't going to be et till next winter."

Impulsively Riley reached out and grabbed Satchel-Face's hand in a firm grip.

The pair had been standing alongside the cab of the shiny 1218. Above them Jerry Greenleaf's clinker hook clattered to the steel deck-plates. Although it was a crisp October night, the fireman's face was pouring sweat. A feather of white steam hissed from the vent of the safety-valve. She was ready to pop.

Riley looked at his huge, open-faced watch, a gift to him from Mary. He swung lightly into the engine cab, snapped his train orders under a clip beside the right hand side cab window. One glance ahead showed him the yard switches were lined for the main.

The conductor stepped back from the track, intending to catch the caboose as it came by at the end of the string of cars. But Riley Banks, a new song in his heart, waltzed those spuds out of the Hunton yards as if every one of them had bought a ticket on an extra fare passenger train. Dust was flying, wheels clacking. Satchel-Face had to lunge for a grab-iron and swing himself topside or lose the train altogether.

"The danged idiot!" he cursed as he started rearward over the swaying tops.

And Riley almost did. Unmindful of old man Smith bouncing and cussing back in the rocking, pitching, swaying caboose, he snapped his spuds down towards the Atlantic seaboard with his throttle wide open and his Johnson bar latched high. He was twenty-three minutes ahead of No. 7, the Bostwick Express. If he could beat her down to Read, where the fast train turned off on the Bostwick Branch, he would save himself a half-hour tie-up at Pendley.

Riley whistled through Danby and Cloverfield without even glancing in the direction of the brake valve, or waiting for a signal from the rear. He was doing better than a mile a minute —keeping pace with No. 7's schedule, and doing it with a string of box cars behind him. He blew one long blast at Pendley. Without waiting for a highball, he followed it with two short whistle calls screaming defiance through the night. Riley was going places. In a hurry.

"Don't look back," he warned his fireman. "Old Satchel-Face is probably swinging a washout from the doghouse. If he can hang on."

As a matter of fact, Smith had grabbed a lantern and that was exactly what he was doing the moment it dawned on him that the wild man at the throttle planned to race the Bostwick Express into Read. He had his rear end brakeman waving frantic stop signs from the other side of the caboose. The front brakeman, glancing back, saw them.

"The boys are swinging you down," he shouted across the engine cab.

"Didn't see 'em," snapped Banks. "And you didn't, either."

The head brakeman grinned. He didn't particularly care how soon Riley pulled into Peterboro Junction. "Have it your way. It's your picnic," he said.

Riley was still well ahead of No. 7 at Read. He had even gained on the Express's running schedule.

"Now," he exclaimed exultantly as the 1218 approached the Read milepost, "we don't have to hole in here for Number Four. We can meet her down the line at Goodland. Another forty minutes saved, and we can make the B & E crossover at Swain ahead of the Portland Flyer."

Satchel-Face didn't try to protest

the headlong plunge of the potato-laden cars through Read. His watch told him there was time enough to hit Goodland for No. 4. But when at Goodland Riley decided to steal another fourteen miles to Benville with No. 4 due there in twenty minutes, the freight conductor was ready to start raising hell.

BUT Riley Banks didn't falter in his purpose. He knew the roadbed from Read clear into Peterboro Junction was a veritable racetrack, one of the fastest stretches on the whole Maine & Midland. Realizing he was cutting his time close, he didn't for a moment believe he was taking any unsafe or unwarranted risk. Not with the 1218 pulling potatoes. He kept his throttle wide open.

"I can see where I cut and run for the passing switch," grunted the head end brakeman.

"Time to make it crawlin' on your hands and knees," declared Riley grimly, as he thought of possible repercussions from officials. It was a wonder, he thought, that some nervous night telegraph operator seeing him fly through had not already reported the potato train as a runaway.

Still, he might as well be killed for a sheep as a goat. He intended to finish the run as he had started it. Hell bent for leather. The freight's lost time was more than made up. He was traveling far ahead of schedule already and making faster time than any freight train that had ever rocked over the Maine & Midland tracks. His one desire was to pull into Peterboro Junction and rush over to the hospital to find out how Mary was doing.

Riley cleared No. 4 at Benville with *almost* the minimum time allowed. About half, to be exact. But the five minute wait for the upcoming train seemed like hours to the impatient engineer.

Satchel-Face marched quivering up to the cab and spent the precious moments alternately bawling out, pleading with, and cussing the engineer.

"Listen, you dad-ratted wild man!" he stormed. "We're goin' in the rest o' the way by the rules. You've cut five years off my life a'ready, and I'm an old rail. Blast you, who's runnin' this train anyhow, me or you?"

Riley wasn't listening. He was busy trying to figure out how much additional time he could steal on the rest of the run into Peterboro. And he was a good figurer. The only time his hand got ready to stop was the moment he approached the main line crossover where the Maine & Midland and the B & E tracks met each other at right angles. He had both the head brakeman and Jerry leaning out the left hand side of the cab watching for signals as he bore down on his whistle cord.

"I hope that guy in the switch tower is awake," he shouted, eyes straining ahead. "If we get stabbed there's going to be a pile of spuds spilled over the right-of-way."

The crossover lights blinked, swung dimly into view.

"What is it?" called Riley.

"Green!" There was relief in Jerry's voice. "Green!" echoed the head brakeman. And Riley's hand came away from the brake valve.

After they made the crossover, they had plain sailing. Riley raced into Peterboro Junction. At the Junction it was customary for an engine driver to put his own engine away, since no hostlers were provided for that work. Riley swung his grip onto the right hand seatbox.

"Bed her down for me, will you?" he asked Jerry. "And put my tools in

the locker." He reached in his pocket. "Here's the key."

Jerry wiped his face with the sweat-rag draped around his neck. Before he could speak, Riley had tossed him the keys, jumped from the gangway and was racing across the yards, bound for the Peterboro Hospital as fast as his legs could carry him.

IT WAS late the next afternoon when Riley Banks was called for another run. When he got to his engine he greeted the fireman with a slap on the back that nearly knocked the latter out of the cab.

"It's a boy!" he shouted. "A nine-pound boy. Born with a coal scoop in his mitts. And he's goin' to be a hog-head like his dad."

"Yeah?" said Jerry. "I figgered may-be it would be twins. Like I said, I knew a fellow—"

"Heard anything about last night's run?" Riley cut him off.

Jerry shook his head. "No. But we will. We cut a clean two and a half hours off the running time with them spuds. Every blamed crew on the road is talking about it. And the dispatchers are cussing. Say they couldn't keep up with you all night."

"Maybe I'm a hero," laughed Riley.

"With a chain o' brownies draped around your neck, and a can tied to your tail. Satchel-Face is still sore."

But nothing could dampen Riley's spirits. "The Maine & Midland wants stuff moved, don't it? They ain't going to can a guy for moving it."

"Moving it! You flew it down last night."

But two weeks elapsed, and no notice came to Riley and his fireman. It began to look as if the engineer had called the turn, as if the Maine & Midland was going to overlook Riley's dash to Peterboro Junction. But the cogs of railroad officialdom grind slowly.

Riley Banks was swinging into the cab, called to wheel some mixed merchandise north, when he felt a tap on his shoulder. He turned to face the roundhouse clerk.

"You're wanted in the office, Banks." The clerk had spotted Jerry Greenleaf coming across the yard tracks. "You, too, Greenleaf."

"We've been called for this run," protested Riley.

"I wouldn't keep the super waitin'. He isn't in good humor this mornin'."

"Something he ate, I guess," snapped Jerry.

"Well, he's going to have him a coupla' smart aleck railroaders for lunch," declared the clerk.

Riley and Jerry were left sitting on the mourner's bench outside Superintendent Sawyer's private office while the clerk went inside. He returned a few minutes later, beckoned to Jerry. Both men got up.

"Only Greenleaf," said the clerk. "You'll be next, Banks."

To Riley it seemed that he sat alone outside the superintendent's office for hours, thinking what a fool he had been to attempt that wild run. It didn't seem so clever in cold retrospect. Suppose he were canned! He had responsibilities now. He needed every cent he could make. There were bills, too; and the doctor to pay.

He wondered what Jerry was telling the officials. He knew Jerry wouldn't let him down. Still it would be better if both their stories jibed in every detail. They had never rehearsed what they would say in event of a hearing. They thought the whole thing had blown over. Anyhow, he would grab the chance to talk to Jerry hurriedly when he came out.

BUT officials of the Maine & Midland had held hearings before. Jerry was let out of a back door before the clerk came for Riley Banks. Inside the superintendent's office, Riley faced a row of grim-faced men.

"Phew!" thought Riley, "I'm glad I ain't up for murder."

He saw Pat Cassidy, the brotherhood griever, standing off to one side. "How is it going?" he whispered. "Looks bad," said Pat. Riley was inclined to agree with him.

Ike Fritch, road foreman of engines, tapped on a desk with his pencil. "You aren't here to talk to Mr. Cassidy. Answer some questions, Banks."

The barrage broke. A cross-fire of incriminating questions that bewildered the engineer. It seemed to him that Superintendent Sawyer, Fritch, the company lawyer, and a half dozen other big shots all began talking at once. Before he had one question answered three more were shot at him.

"You're an engine driver?" "Yes sir." "You know the rules and regulations governing the movement of freight trains?" "Yes sir." "You are familiar with Rule G?" "Yes sir." "What does it refer to?" "Drinking." "How old are you?" (This from the stenographer.) "Twenty-nine." "On the night of October Twenty-third, the night in question you had your fireman put your grip in your locker, isn't that so?" (Riley wondered what they were driving at.) "Yes sir." "That isn't customary." "Why did you do it?" "Because you were drunk and didn't dare show yourself around company property in that disgraceful condition. Is that or is that not the truth, Banks?"

Riley's face turned red. They thought he had been drunk the night he wheeled the spuds into Peterboro Junction. He knew how the Maine & Midland felt about trainmen who violated Rule G.

Only the thought of Mary, and his first-born son enabled Riley to keep his temper. He longed to flare up and tell them all how wrong they were, what a pack of fools they were. But he bit his lips to maintain silence, and awaited an opening. Finally it came.

"If you'll let me explain—"

"We've had a lot of explanations," said Fritch. "Just answer our questions."

To Riley's surprise, Superintendent Sawyer interrupted with: "Perhaps it wouldn't be a bad idea to let this man tell his own story."

RILEY launched out, beginning with the breakdown of the 1020 in Hunton and the delay before he was given the 1218 by Mike Mullarkey to haul the spud train into Junction City. He didn't elaborate or make excuses. The straight truth was his only chance to justify his actions at all, and he was totally unaware of the quiet pride in his voice or the softness that crept into his flashing eyes whenever he mentioned his wife or baby.

The officials let him finish. When he was through he looked desperately from one to another. For the most part the men sat staring at him stoney-eyed. Only Superintendent Sawyer leaned back in his chair.

"Riley," he said, "may I ask Mrs. Banks' maiden name."

"Mary Kelly." Riley hoped Sawyer wouldn't try to drag *her* into this mess. "She used to be a clerk in the paymaster's office downstairs."

"Unh-huh. I remember her. A fine girl. A very fine girl." He turned to his colleagues. "You've heard Banks. I'm inclined to believe him, if not to condone his actions."

Fritch jumped up. "You ain't going

to let an employee get away with making a racetrack outta the Peterboro Division?"

"I didn't say I was, Fritch. But I think the penalty should be commensurate."

"First thing you know engineers will be racing freight a mile a minute over the Maine & Midland!" Fritch was implacable and pigheaded.

"All over the country probably," added the superintendent. "After all, Mr. Banks's—er—exceptional run has demonstrated that under competent train handling and properly arranged schedules there is no valid reason for not stepping up considerably the speed with which we have moved merchandise in the past. The shippers would welcome the fast schedule, I am sure."

"It costs money to run fast trains. Fuel, power, equipment, track maintenance," said a voice on the left.

"It costs more to keep freight trains tied up on passing tracks," was the comeback.

Riley wondered if he had been forgotten in the sudden argument. Until Sawyer swung towards him.

"All right, we'll settle it this way. Take it or leave it, Banks. Thirty days."

Riley's heart sank. Thirty days, a whole month, without work.

"With pay," added the superintendent, "and a suitable bonus for suggesting and showing the operating department a new means of increasing freight revenue on this road."

Riley left the room in a daze. He wanted to tell Mary, wanted to pinch himself first to be sure he wasn't simply dreaming. But most of all what he couldn't understand was Superintendent Sawyer's sudden enthusiasm for fast freight. Neither could the officials still arguing with Sawyer behind the closed doors. Because they didn't know any more than Riley could have known that half the potatoes on the young engineer's train had come from farms Sawyer owned up north. They didn't know then that beating the train's usual schedule two hours had resulted in better shipment over connecting lines to the open market. They didn't know that because of reaching the market a day earlier, Sawyer and the other shippers had obtained top prices for their produce.

But Sawyer knew. He had seen the idea of fast freight where it affected him the most: in his pocketbook. He was sold on the idea. He liked it. So did Riley when he reported back for work and found the freight schedules stepped up. Riley Banks always *had* wanted to wheel 'em fast, even if he had only a drag of spuds behind him.

Coming Fan Trips

THE Railroad Boosters are planning a jaunt from Los Angeles to Crucero and thence over the Tonopah & Tidewater to Beatty, Nev., and return. This 696-mile ramble is to cost $6.80, and will take 24 hours, starting on a Sat. evening about Jan. 1. The train, of *Challenger* type cars and diner, will travel over the UP to Crucero, where everybody will embark on a T&T special which will take them up the line to Death Valley Junction, and Beatty, with a side trip (not by rail, of course) to the ghost town of Rhyolite. Stops will be made at Yermo, Barstow, and San Bernardino. For details and reservations get in touch with R. E. Melching, 1448 S. Dunsmuir Ave., Los Angeles, Calif.

The Pacific Coast Chapter of the R&LHS is planning its Ft. Bragg trip about April 10. Get in touch with G. H. Kneiss, 18 Forest Lane, Berkeley, Calif.

Model Railroading

Conducted by DAVID MARSHALL

"THE airway is not nearly so thrilling with wonder as the railway. A baffling network of intersecting tracks is no dull matter of mechanical calculation; it is the very poetry of the steadiness, the self-mastery, the unwavering accuracy of the human hand and brain."

And so begins the best book we have ever seen on the subject of model railroading—"The Craft of Modelling Railways," by Edward Beal (Thomas Nelson & Sons, New York and Edinburgh, $4.50 plus postage). Its author is an English clergyman who is also a model builder of quite exceptional skill and a writer of the first order of ability. The book runs well above 300 pages, and the text is illustrated by no fewer than 276 photographs and diagrams.

It is not, however, a mere handbook for the workshop; it is the whole romantic story of a hobby which had its beginning in England at least fifty years ago, and which has spread since then to France and Germany, and to every nook and corner of the English-speaking world. It is a book, the author tells us, "for the pipe, the fireside and the slippers"; yet one to be kept for many years to come as a work of technical reference. It covers American as well as British practice—and we know of no better way to learn either than by following the comparisons which are drawn here. Its particular value, however, lies in its summing up of pretty nearly all the various efforts ever made to solve each problem of model railroading.

We believe that the appearance of this book is the most important event of the month; and we are quite sure it will be included on many a model railroader's Christmas shopping list.

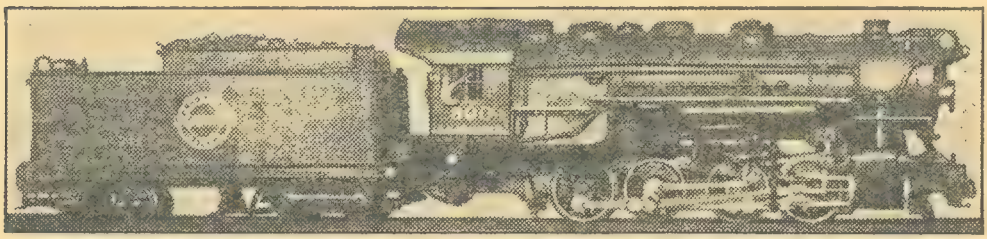
ALL true model railroaders are called upon to join in the search for a famous model locomotive which has been missing since Oct. 22 from the operating room of the New York Society of Model Engineers. Exhibited for years at the annual shows of the society, and known to perhaps a hundred thousand show visitors, the engine is without a single duplicate in the world and can very readily be recognized.

She is an 0-8-0 Indian Harbor Belt Line switcher, number 800. Below her cab window was painted the name *R. H. Weatherly,* while upon her tender appeared the herald of the Atlantic Seaboard Lines.

The 800 was built from original blueprints to the scale of seventeen sixty-fourths of an inch to the foot; and to avoid even the slightest deviation from scale, the motor was built in the tender and connected with the drivers by flexible shaft and worm-gear. Another effect of this motor arrangement is to allow room for every last valve and gear below the boiler and to allow, too, for the play of daylight between the drivers. She weighs twenty-seven pounds.

Still another mark by which she may be known is the superb quality of workmanship. No less than 800 hours were spent in building her. The drivers are fully sprung and equalized.

She belongs to Carlos E. Smith, president of the N. Y. Society, who offers a suitable reward for her return. This engine has been borrowed from time to time by various model builders who have sought to copy some of her features, and it is hoped that such a person may have her now, although no record has been made of a recent loan.



IHB Switcher Missing. Please Be on the Lookout for This Model, All over the World. She May Have Been Picked up Accidentally and Repainted by Someone Who Doesn't Know She Belongs to Carlos E. Smith, President of the New York Society of Model Engineers

Trouble Department

LOUIS F. SIMMINS, 276A Varick St., Jersey City, N. J., writes: "I am acquiring an extensive tinplate system, but have only a damp cellar to put it in. I am afraid of rusted equipment. Can you help me?"

Regretfully we confess our inability to help in a case like this. A damp cellar is no place for tinplate; and above all, it's no place for you.

But if you cannot have a room upstairs for a permanent layout, why not devise a semi-permanent affair that hooks together in five minutes when it's wanted and stows away in a closet between-times? All your tracks could be nailed to six-foot boards, or comparable sections of ply-wood; and the several sections could be made to clamp together.

The electrical connections become a simple matter if you use binding posts wherever two sections join. Thus the third rail of one section would be connected with its opposite number in the adjoining section by the inch or so of copper wire that jumps from one binding post to the other. Some sections of a semi-permanent system might even hinge to one another, and the whole works might well be designed to fit over the furniture that normally occupies the room. The design of semi-permanent pikes of this kind is, indeed, a very respectable branch of model railroading.

A Few of the Heralds of Well-known Model Roads: (Left to Right, Top) The Great Gulch, Yahoo Valley & Northern; A. C. Kalmbach, Wauwatosa, Wis., Gold Letters on White Band in Red Ball; the New England & Northern; A. S. Arnold, Worcester, Mass.; Black on White; the Great Northwestern; Paul Mallery, Columbus, O.; Black on White. (Middle Line) The Jersey Northern; Wm. Wheat, Jersey City, N. J.; Red Ball in White Star on Black Ball; the Intermountain & Pacific; Owen McKeon, San Francisco; Black on White; the Puget Sound & Portland Southern; P. W. Grauwen, Bucoda, Wash.; Natural Colors. (Bottom) The Rayland Southern; Rev. Frank Neff, Jr., Pickford, Mich.; Gold Letters on Blue Diamond and Blue Letters Outside; the Central Hudson; C. H. Reynolds, Phila., Pa.; Black on White

And lest we appear to be "laying it on" when we suggest your building table-work over the furniture, we refer you to a recent letter we have had from so eminent a model railroader as William F. McAllister, recording secretary of the New York Society of Model Engineers. Mr. McAllister says that all table-work should be five feet or more high.

The old rule is that the tables ought to be from 37 to 42 inches off the floor; and this, of course, is predicated on the assumption that we sit down to see the trains go round. But we all know that model railroaders seldom ever sit—except in a control tower, and Mr. McAllister stipulates that, for such purposes, platforms be built well off the floor, so that the seated operator may look down upon the tracks.

* * *

JOHN J. SAAL, 523 Ninth St., Brooklyn, N. Y., writes: "How can I make trees for my model system? I have heard of several ways, such as cork, bread, sponge, etc., but would like your opinion."

Some of the best model railroaders stand clear of trees entirely, and most authorities agree that they had better be left out than modeled unconvincingly. We confess that we have not had the good fortune to see a model tree which brought credit to its maker.

A first-class artist does not simply paint trees, but takes a particular tree, one after another, and paints each one in turn; and so the model railroader, if in the end he is to have anything worth while, must model a particular prototype, such as may be photographed in any park.

The materials? Why not begin with a bundle of fine wires and tape them together to form the trunk? At each biforcation the bundle could be divided, and each branch in turn could be fashioned thus, and bent and twisted to shape. A very fine grade of narrow tape would be required, however, and the finished job should leave a profusion of loose ends, all of irregular shapes, to represent the twigs. The whole job could then be dipped in paint. Later the outermost twigs could be dipped in glue and sprinkled with fine sawdust, the flecks of which, singly or in combination, might simulate the leaves. And, of course, a tree so carefully made, deserves to be gone over with a paintbrush by hand. These suggestions, we must add, are wholly experimental.

We know of two trees that are produced commercially and yet are fairly good-looking. The first is made wholly of metal, but bendable, so that no two need be precisely alike. It is made by Britains, Ltd., of England. The other is a poplar manufactured by Hornby's, also an English firm. We are advised that the Britains product may require to be repainted in flat colors, and that the Hornby tree should be dipped in dark brown paint well thinned out with turpentine.

But perhaps you can develop a method of modeling good trees. Until someone does, our advice is to have as many trees as your heart desires—but keep them in the painted "scenery" that forms the background of your pike.

CD Rolling Stock

SOME time ago we told you that our order had gone forth to Cleveland for "one of everything" obtainable in the way of CD rolling stock. It was a terribly big shipment when it came; so large, in fact, that we were left wondering when we'd ever have the time to put so many kits together; and in the end we compromised by having somebody else make up 16 or 18 freight-car bodies. The bodies alone were all we wanted, for the wooden wheels and wooden trucks disappointed us, as we have no doubt they disappointed others. But the bodies alone we thought well worth the price, and the instruction sheet that goes with every kit seemed especially valuable.

The main feature of a CD kit, we discovered, is a sheet of paper on which the two sides, the two ends, and the roof of a particular car are reproduced in all their proper shades and colors, and with photographic fidelity to the prototype. This is the key to all that follows. From this you take every dimension; to fit this with utter precision, you build your car of balsa wood; and when the car is built, you carefully cement this colored paper around it.

There is a certain flatness about the result that cannot be denied, though it seems reasonable to suppose that a good craftsman could overcome this defect by adding to the finished product many details of his own—ladders, grab-rails and the rest—so to bring out in relief those items which ought properly to stand out but which are merely pictured here. But apart from all this, and considering them as just what they are, the CD freight-car bodies remain, in relation to the prices asked, altogether worth while.

And now, just as we go to press, we get a note from E. T. Pachasa, president of the CD company, assuring us that "operating trucks, couplers, and mechanisms" for CD rolling stock will be ready for delivery by the tenth of December at the latest and possibly a few days earlier.

News of the Clubs

NEW YORK SOCIETY OF MODEL ENGINEERS (152 W. 42nd St., N. Y. City) announces that its tenth annual exhibition will be held in February, beginning on the 12th and closing on the 26th. By that time the whole of the OO gage Union Dock & Terminal Railroad will be operating, along with the older O gage Union Connecting Railroad. As previously reported in these columns, both lines will operate on direct instead of alternating current; and the most wonderful device ever perfected in the long history of railroad signaling—the interlocking machine described in our October issue—is something you will want to see. This, by the way, is being built in a tower that really is a tower: its floor is well above the level of the tracks, which in turn are forty or forty-two inches above the floor.

* * *

KANSAS CITY SOCIETY OF MODEL ENGINEERS has been dissolved, according to J. M. O'Brien, but another club is in process of forming, under the leadership of W. M. Goodrich, 3408 Locust St., Kansas City, Mo. The new society, it is indicated, will be strictly an O gage organization for electric or steam.

* * *

NEW LONDON RAILROAD ASS'N (Harry S. Libby, sec., 72 Grove St., New London, Conn.) has elected new officers. In addition to Mr. Libby, they are Chas. F. Munger, Jr., pres.; Franklin LaPierre, vice pres.; and Leonard Clapp, treas. The club is calling for new members.

* * *

MONTREAL SOCIETY OF MODEL ENGINEERS (Cecil F. Harding, hon. sec.-treas., 24 Winchester Ave., Montreal, Que., Canada) has elected new officers for the coming year: J. E. Hedley, pres.; R. Seton Logan, vice-pres.; S. R. Stevens and H. P. Gill, locomotive committee; R. E. L. Johnson and A. H. Paton, power committee; and F. A. McLean and S. W. Angell, general committee. Mr. Harding was appointed to his post by the new president.

The election was held at the home of R. Seton Logan, 24 Winchester Ave., Westmount, Que., and was followed by a general entertainment which included motion pictures and a supper of sandwiches and coffee.

This society is notable for publishing a monthly bulletin in which the main points of every lecture are carefully reported and preserved. Last month's lecture was on the subject of "Mechanical Drawing for the Model Engineer," delivered by A. H. Paton, a member of the society. Among his interesting observations, as reported in the bulletin, were these:

An exact drawing insures us against waste of work and material. It enables the designer

O Gage Model of a Passenger Car on the British Columbia Electric Railway; Built by Jeff Mergens, 235 Montreal Street, Victoria, B. C., Canada

of original models "to visualize his ideas and assemble them together in a properly proportioned design."

"Much good engineering work, and pattern making, has been spoiled by efforts to correct the natural mistakes caused by incomplete designs."

To build up a good drawing, "first locate the main dimensions by center-lines; then indicate the main components; and finally proportion the accessories to them."

* * *

GOLDEN GATE MODEL ENGINEERS GUILD (1010 Gough St., cor. Eddy St., San Francisco) announces the birth of a new pike, O gage, to be known as the Dusty, Wandering & Box Jungle Railroad because it dodges "machinery, boxes and shelves" in the basement workshop of Capt. Frederick Shaw, 542 18th Ave., San Francisco. The line begins operations with a total length of 91 feet, and the wiring is such that two-rail operation can be carried on at will. Ultimately it will be double-tracked over the entire length, and HO and OO lines are to make connections with it. The DW&BJ is the first railroad enterprise carried out by the guild, which in October celebrated its eighth anniversary.

* * *

HO GAGE TWO-RAIL CLUB OF CHICAGO (Ralph Johnson, sec., 4137 N. Lawndale Ave., Chicago) has just been organized at the home of Joe Washburn, 6649 N. Ashland Ave., and will meet henceforth at homes of the various members in alphabetical order. A feature of the club is that it has no officers except a secretary.

At the organization meeting, the fun began. Joe Washburn's layout, while still unfinished, consisted of a three-track main line in working order, a small yard and some beautiful scenery. Eight Pullmans and seven freight-cars were at hand and two locomotives—a six-wheel switcher brought by Tom Heathers, and a Mountain type belonging to Ted Bergers. Each locomotive proved capable of wheeling away with all 15 cars.

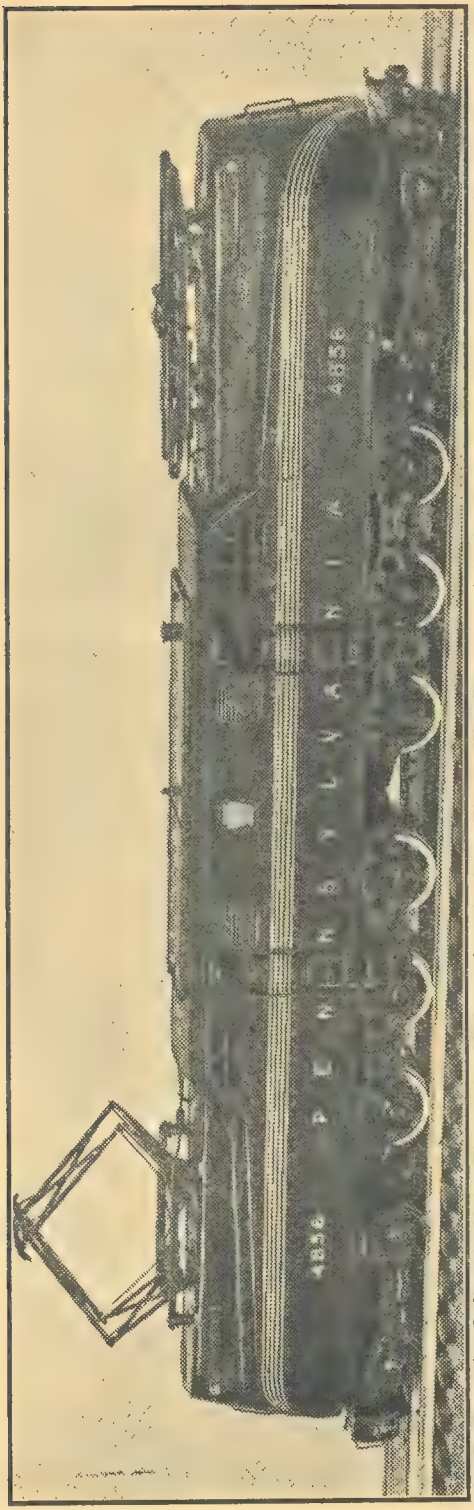
* * *

BROOKLYN R.R. CLUB (Dunwood Western Lines, 338 74th St., Brooklyn, N. Y.). These officers were elected for the coming year at the annual dinner, Oct. 23: Oliver N. Carey, pres.-sec.; Ralph B. Hodson, vice-pres. (re-elected), and Gerald T. Coleman, treas. The retiring president, H. W. Saler, announced that the club had acquired some new motive power, after which the members adjourned to a nearby bowling alley to test their skill at the maples. High score was made by Al Bogert.

Call-on Signals

ALL persons interested in forming a model railroad club in or near Windsor, Ont., Canada, are invited to communicate with Earl Laforet, 242 Belle Isle Ave., Windsor.

All those who might like to join a "Trolley Modelers Association" in Philadelphia are asked to get in touch with Paul Willis, % Mrs. A. J. Treacey, 710 E. Chelten Ave., Germantown, Philadelphia, Pa.



As Fast as the Railroads Make Them, the Model Railroads Copy Them. The Pennsylvania's GG-1 Can Operate on O Gage Lines Today, as the Photo Shows. This Model is Put Out by the American Model Railroad Co. The Finished Job Sells for $110. In Kit Form It Is Available at $48.50 with One Motor Truck and One Trailer, or at $62.50 with Two Motor Trucks

The Model Trading Post

TO BUILD UP YOUR SCENERY, many fine things are available this year. Schoenhut Mfg. Co., Dept. R, 2046 Castor Ave., Philadelphia, Pa., is putting out a handsome line of model buildings, several of which are offered for less than a dollar each. Scale Models, Inc., Dept. RS-31, 1516 South Wabash Ave., Chicago, is making a set, composed of station, signal tower, and watchman's shanty—in addition to its new line of OO equipment.

And the Strombeck-Becker Mfg. Co., Dept. R 127, Moline, Ill., has among its famous wooden models, a splendid NYC Hudson-type locomotive, which rolls on O gage track and looks generally like a million dollars. Idling on storage tracks, or being pushed about, these add considerably to the "atmosphere" of a pike that otherwise is short on motive power. We have even seen one of them used to double-head a limited train.

* * *

WHOLESALE RADIO SERVICE, 100 Sixth Ave., N. Y. City, Dept. 42M7, is selling at a very reasonable figure a remote control tuning device for radios, which is easily adaptable for use in a turntable. There are six adjustable positions which can be set so as to stop the turntable directly in line with any of six different lead tracks. The gadget is sold complete with motor, transformer, switch, and all other necessary attachments.

WANTED

CATALOGS, all back numbers issued by Lionel, AF, Hafner, Dorfan, Finch, Voltamp, and Bing. I also want hand-coupling cars made by those concerns, and numerous other items including spring motors for Bing loco and AF loco 10. To complete my files I also want sundry back numbers of magazines of interest to model railroaders. Write for list. In exchange I offer forty-odd back numbers of such publications.—T. J. Pelletier, R. 3, B. 39, Palouse, Wash.

* * *

LIONEL cars 603 and 604, or 655, 656, and 657; or AF cars 3211, 3212, 3208 and 3210.—Herbert Rosenfeld, 2054 Harrison Ave., The Bronx, N. Y. City.

* * *

DORFAN electric type loco 51. Needn't be in good operating condition if castings are sound.—J. E. Barman, 5211 S. Kingshighway, St. Louis, Mo.

* * *

LIONEL JR. 1056E, or O gage 242E, 235E or 234E. Complete set must be in good working order. I offer in exchange model airplane supplies, propellers, tissue, etc.; and one Hawk solid kit. Write for list. Use 2c reply postal card or enclose addressed stamped envelope.—Chas. Bohemier, 4 S. 7th St., Fulton, N. Y.

* * *

O GAGE track and switches. I offer *Pocket List of Railroad Officials* for first quarter of 1935 and first three quarters of 1937; also ten good books of juvenile fiction; "Modern Locomotives," by John Y. Beatty; and sundry train orders, employes' timetables, etc.—Bill Siffin, Jr., 552 Harvard Terrace, Frankfort, Ind.

* * *

HERALDS and other insignia of model railroads. I will send mine in return.—Jim Yocum, 3851 N. Broad St., Phila., Pa.

* * *

TROLLEY models, standard gage; must be deck-roofed, closed cars with front and rear doors. No arch-roof types.—Jim Smith, Cranbrook School, Bloomfield Hills, Mich.

LIONEL O gage eqpmt. as follows: 2 prs. Oil switches, B transformers, ballasted rubber roadbed, signal 99, station 115, 2 panel-boards 439, whistle equipment 265TW, and 8 frt. cars of 600 series. All good condition. In exchange I offer Gilbert Big Erector set, like new.—Donald Sharpe, 388 Third St., Albany, N. Y.

* * *

O GAGE scale eqpmt. I offer books, magazines, camera, etc.—W. Nelson Rich, Box 781, Stamford, Conn.

* * *

SWITCHES, two left-hand and two right-hand; also four trucks for freight cars; all standard gage.—Walter Glodzik, 247 S. 6th St., Reading, Pa.

* * *

WIND-UP engines, old type with cast-iron cab, boiler, etc. I also want old catalogs, the older the better. —A. T. Hardison, 207 Central Ave., Sarasota, Fla.

* * *

LIONEL O gage eqpmt. I offer in exchange *Official Railway Guide* for May, 1902; April, 1907; Dec., 1907; Feb., 1910; July, 1926; July, 1927; June, 1928, and Oct., 1932. I also offer back issues of *Railroad Magazine*, Dec., 1934, to date, except for issue of June, 1936.—Cyril Harder, 692 14th Ave., Paterson, N. J.

* * *

STEAM-TYPE locos, cars, track and switches, O gage or standard. I offer in exchange tenor banjo with U. S. School of Music Course, folding 4x5 plate camera and tripod, Swiss music box, good books, radio parts, etc.—O. E. Babb, Argyle Court, Burlington, Iowa.

* * *

LIONEL O gage steam loco and rolling stock. I offer large assortment of chemical equipment, glassware, bunsen burner, etc.; not toys, but genuine stuff. I also offer model airplane aluminum cowling, 6¼ inches long by 3 inches wide, closed faced, and 3-inch air wheels with aluminum disc on axle.—A. Lederer, Box 493, Copiague, Long Island, N. Y.

OFFERED

I OFFER Ives No. 1 gage outfit, manufactured in 1912, as follows: Electric-type loco, complete except for motor; baggage and buffet comb. car; coach, obs. car, boxcar, flatcar, gondola and caboose; quantity of straight and curved track and two switches. All good condition.—Geo. Weinheimer, 218 Yale Terrace, Linden, N. J.

* * *

AMERICAN switching loco, 9½-inch gage, motor-driven; eight-seat pass. cars, and 800 feet of tracks, switches, sidings, stations, etc. I also offer super-scale NER Atlantic loco, 9½-inch gage; and six four-seat cars and 700 feet of new track, all in perfect order. A third offer: No. 1 gage live-steamer, PRR E6 type, alcohol-burner, perfect condition.—M. L. Jennings, Clandown House, Port Road, Barry, Glamorganshire, England.

* * *

ASSORTMENT of tinplate items: Station, signals, switches, street-lamp, illuminated signs, crossing gates, sign and warning-bell; Lionel coach 610, Ives caboose and boxcar, and Ives loco. 3253; also numerous sections and track and a crossover.—Alan Pierson, 92 Greenbush St., Cortland, N. Y.

* * *

LIONEL O gage eqpmt.: Steam-type loco. 262E, electric-type loco. 248, boxcar, tanker, gondola, lumber-car and caboose, 2 lock-ons, 88 controller, W-type transformer, A-type transformer, 28 sections of track, and 90-degree crossing. In exchange, I want photographic eqpmt.—Wm. Foley, 565 Jersey Ave., Jersey City, N. J.

* * *

BRONZE CASTINGS, complete set of 28, for Atlantic type loco., quarter-inch scale, all new.—A. D. Purkis, 479 St. Mary's Road, Winnipeg, Man., Canada.

* * *

LIONEL blinker, No. 83, like new.—E. MacDougall, 9202 215th Place, Queens Village, Long Island, N. Y. City.

* * *

A. F. ITEMS as follows: Bridge 212 without track, 11 sections str. track 401, 15 sections curved track 400, station 96, obs. car 1287, mail car 1205, pass. car 1286, loco. 3011, sand car 1116, two tank cars 1118. I also offer AF catalog of about 12 years ago.—R. W. A. Garasha, 4102 Argyle St., Chicago, Ill.

* * *

IVES loco. 3236R and caboose 195; Lionel engines 10 and 318E and obs. car 190; AF loco 4680 and car 4040; also accessories, track, switches, cars, etc.—B. F. Hills, 87 Blue Hills Ave., Hartford, Conn.

NO charge is made for "Wanted" or "Offered" listings in this section. Items for the March issue (out Feb. 1) must be received before Dec. 20. Preference is given to those accompanied by our latest Reader's Choice coupon (page 143), properly filled out. If you don't want to clip the magazine, make your own R. C. coupon.

For free advice on model railroad problems, write to us, enclosing a stamped, self-addressed envelope.

TROLLEYS, open and closed, old and modern, almost every type and gage.—Paul Willis, 910 E. Chelten Ave., Germantown, Phila., Pa.

* * *

STANDARD gage Lionel Loco 400E, like new. In exchange we want std.-gage automatic switches in perfect order.—Mohawk Valley R.R., Stanley Hyslop, president, 846 Wright Ave., Schenectady, N. Y.

* * *

QUARTER-INCH scale model AB&C ribbed boxcar and paper crossties.—Maryland & Western Lines, W. E. Hoffman, Supt. of Eqpmt., 326 S. East Ave., Baltimore, Md.

* * *

STANDARD-GAGE locos., pass. and frt. cars, and trackage. Mostly in A1 condition.—Howard Pape, 115-53 173rd St., St. Albans, Long Island, N. Y.

* * *

COMMODORE VANDERBILT loco and tender, plus oilcar, boxcar, coalcar, gondola and caboose, all 4-wheeled; also 12 pieces of track, transformer and lock-on. Perfect condition. In exchange I want other O gage eqpmt.—Bernard Gasman, 10 Argyle Road, Brooklyn, N. Y.

* * *

LARGE Lionel std.-gage set. Write for details.—John J. Saal, 523 Ninth St., Brooklyn, N. Y.

* * *

COMMODORE VANDERBILT pass. train outfit 1689E, new, complete with transformer and track. I also offer frt. outfit to match.—Frank Wheeler, 20 Clinton St., Waltham, Mass.

* * *

BOX-MOUNTED Adept lathe and Millers Falls drill press. Write for details.—C. W. Morsch, Brooklyn R.R. Club, 338 74th St., Brooklyn, N. Y. City.

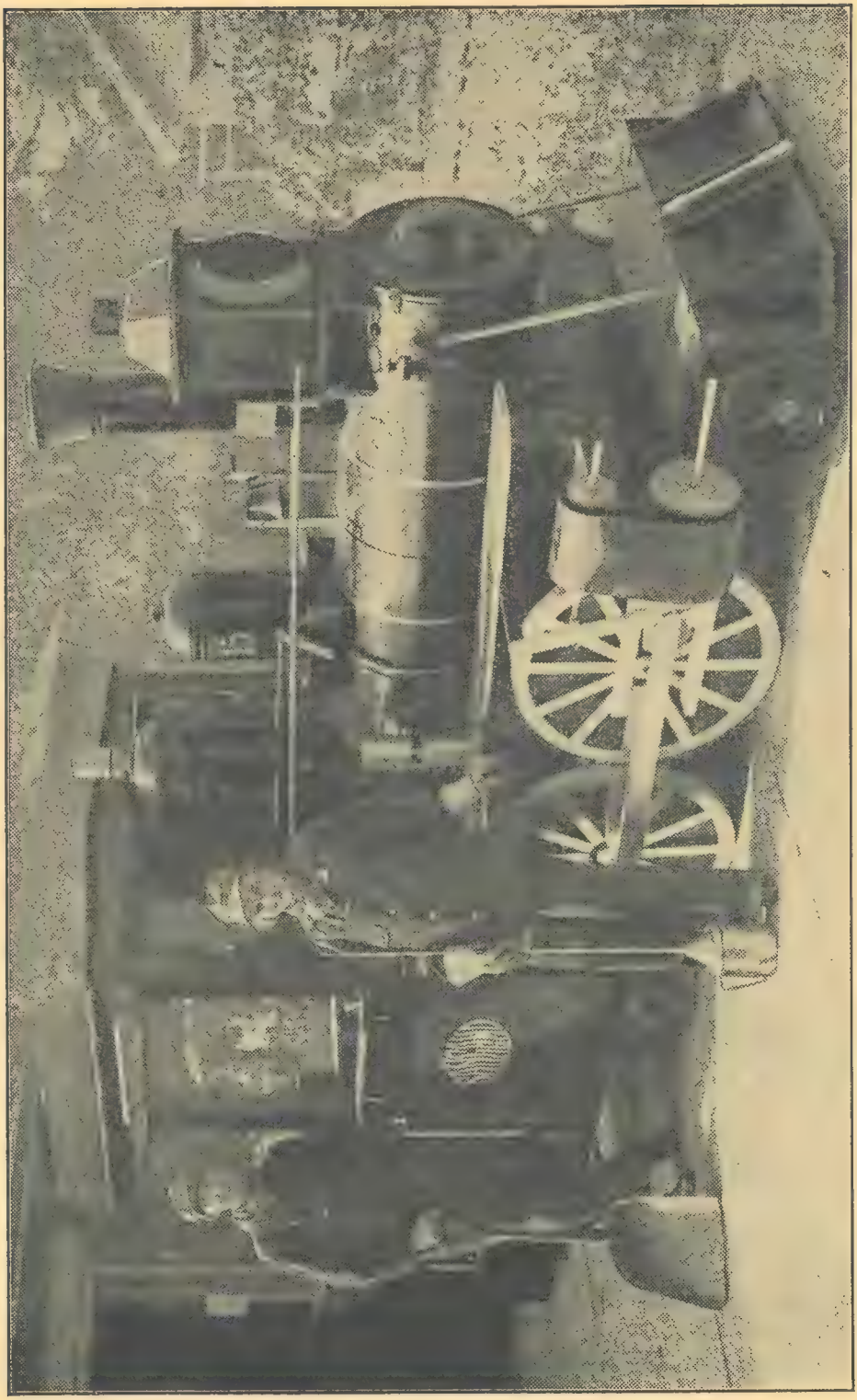
* * *

O GAGE engines, cars and track; also assorted numbers of *Railroad Magazine* for 1936 and 1937 to date. In exchange I want HO equipment.—Robert Gruhn, 1333 Elmwood Ave., Wilmette, Ill.

A Couple of Fan Letters

YOU remember, of course, the series of humorous yarns by Johnny Thompson which appeared recently for two or three years in RAILROAD STORIES MAGAZINE, built around The Engine Picture Kid and his "all-burn-haired" sweetheart, Goldenrod.

Most of the scenes were laid on the Happy Valley Line, somewhere in Canada. Goldenrod is the daughter of Hardshell Higgins, owner of the little 3½-mile road, and was generally known as the only female hogger in captivity. The Kid began his railroad career as a boomer call-boy but eventually settled down as Goldenrod's fireman. He finally married her and, as a



The Engine Picture Kid and Goldenrod Came to Life the Other Day in an Amateur Show at Springfield, Ill., the Parts Being Taken by William Steele and Helen Grubb. These Two Fiction Characters Were Originally Created by John A. Thompson and Illustrated by Joe Farren

wedding gift from Old Man Higgins, was promoted to the right-hand side of the cab. There the series ended, much to the regret of many readers.

On the strength of that series, two or three model enthusiasts named their pikes the Happy Valley Line. And now I come along with a photo of the Kid himself, and Goldenrod, and a 2-4-4 tank engine which I designed and which was built by my associates in the Sangamo Electric Co.

This locomotive was used in an amateur show put on by the Fifteen Year Club here, and is built mostly of wood. The boiler is made from ply-wood barrels, ornamented with the brass bands of earlier years. Pilot and trailing wheels are of iron; domes are tin lard cans, with tin washbasin for crowns. The air pump and whistle were made out of old paint cans, while the stack is a length of stovepipe with a turned wooden cap, and the headlight is built of wood, fitted with small electric bulb and reflector.

Classification lights are aluminum salt-and-pepper shakers with green reflecting buttons for lenses. Flags on the front end are green, while markers on tank are red—all being made of sheet tin painted the proper color. Pilot braces, hand-rails, piston and valve rods are wood rods coated with aluminum paint. Drivers have a ply-wood center, with rims, hubs and spokes nailed in place. Hubs are three-quarters-inch floor flanges and axles, the same size pipe.

Our cab is fitted with movable throttle, reverse-lever, straight-air brake lever, water column, steam gage, gage cocks, whistle and sander lever, electric gage light, dummy valves to injectors, hand-swung firedoor with chain to throttle quadrant, drop seats and hinged running board doors. Tank is fitted with hand brake and ratchet, man-hole with hinged lid, and tool box on the rear.

The valve gear is in a class by itself, but the rods and wheels are properly quartered and the whole gear works perfectly for show purposes. By removing the handle of a classroom school-bell I was able to place it so that it now swings nicely in its brackets.

I might add that the crew shown is really William Steele, posing as the Engine Picture Kid, with Miss Helen Grubb in the role of Goldenrod.—Fordyce W. Brown, 825 Park Avenue, Springfield, Ill.

* * *

FANS do get a break sometimes. For instance, I had a quarter-inch scale model freight train which I had built on display during our Lions' Club "Railroad Week"; also my collection of employes' timetables, the second largest in the country.

R. C. Williams, superintendent of the Mo.P.'s Missouri-Illinois Division, was the guest of honor at a luncheon. When he saw my application for a job he remembered seeing my scale model. The recollection helped a lot in influencing his decision.

The 80-mile division connects Salem, Ill., with Kellogg, Ill. We have a switcher at Kellogg, where there is a car ferry across the Mississippi. There are four crews on the "chain gang," two local crews and a passenger crew—not to mention two extras almost every day. What 80-mile pike can beat that? All the crews are 100 per cent Brotherhood and all are freight solicitors. Yes, we get the business. I have been on the road since June and now have broken in two new men under me. Incidentally, my father is a railroad conductor, so was my grandfather.—Lee K. Allen, 209 Oglesby St., Salem, Ill.

North America's First Railroad Timetable

THE B&O, chartered in 1827 and still operating under the same charter, was the pioneer rail carrier on this continent for the public conveyance of passengers and freight. It was the first to publish a timetable and, coincidentally, the first to advertise in a newspaper. In January, 1830, as soon as the road was completed from Mt. Clare station in Baltimore to just beyond the Carrollton Viaduct, about two and one half miles, it started running excursions between the two points and thus obtained its first revenue.

Upon completion of the first section of its line—from Baltimore to Ellicott's Mills (now Ellicott City), Md., a distance of thirteen miles—the B&O advertised its first timetable, announcing three trains in each direction daily. The first "brigade" of cars left Baltimore at 7 a. m., the next at 11 a. m., and the third at 4 p. m. Return trips from the "Mills" were scheduled at 9 a. m., 1 p. m. and 6 p. m. All were drawn by horses in those days. A round trip ticket cost 75 cents.

The original advertisement appeared in the "Baltimore American and Commercial-Advertiser" and the "National Intelligencer and Telegraph" of Washington, D. C., on May 21, 1830, and announced the beginning of the schedule May 24. Edward Hungerford, B&O historian, relates that the first train started punctual to the second—a good omen for the future.

The Famous Old 232

By H. G. MONROE

AS MANY records of the old Western & Atlantic were destroyed when the roundhouse in Atlanta was destroyed by fire in about 1904, this history of the 232 had to be gleaned from old-timers who remember her.

In addition to being the first engine in Atlanta with an electric headlight, the 232 had an interesting history. In 1870 former Governor Joseph E. Brown leased the W. & A. from the State of Georgia for a period of twenty years. The little railroad had about fifty wood-burners, in various conditions, which had withstood the rigors of the Civil War. Mr. Brown leased six Cooke locomotives and bought eight coal-burning eight-wheeled Rogers passenger engines with diamond stacks.

He also overhauled all of the old gals, converting them into coal-burners and changing the names and numbers of many of them. The eight new passenger engines, with 16x24-inch cylinders, and 64-inch driving wheels, were numbered from 32 to 40. The 32, which later became the 232, was named for Governor James M. Smith.

Along in 1884 those eight Rogers went into the shops, one at a time, for general overhauling. Their fronts were extended and straight stacks replaced the diamond stacks.

When the 32 came out of the shops she was a proud little girl. Her steam dome was jacketed with brass, while the cylinder and steam chest casings, hand railings, injector pipes, and the edges of the wooden running boards glistened like gold. Around the top of her stack was a vivid red rim. Engineer Burt Thrash was assigned to her.

At that time, Lyman Ivey, Jr., working in the company's brass foundry, moulded many beautiful brass gadgets for the enginemen, including a pair of brass candlesticks and other adornments for the 32, such decorations in those days being the property of the engineers.

About fifty years ago John Welch replaced Thrash as hogger on the 32. Johnny bought the engine's flagstaffs from Thrash and added other brass to the 32, including two beautiful waste boxes. Above her sand dome he put a large eagle with spreading wings. R. B. Marsh, a veteran of the Atlanta shops, said it was covered with pure gold leaf. Johnny also acquired the bell from the *Ben H. Hill,* No. 23, and had it placed on the 32. This bell was noted along the line for soft, musical tones. Fourteen silver dollars are said to have been used in making it.

In December, 1890, the N. C. & St. L. leased the W. & A., but did not change the initials on the rolling stock on this lease. However, they rebuilt the eight little passenger engines and raised their numbers 200.

The 232 was the first out of the shops. One day in 1898, while Johnny Welch was off, she was pulling the pay train. Near Dalton, Ga., a rod broke on the left-hand side, cleaning that side of the engine and seriously injuring the fireman. For months after that the 232 was out of service, but in the fall of 1898 Master Mechanic Collier had her rebuilt.

At that time Welch was general chairman of B. of L. E. division No. 207. He had won a race with the 232 for the Southern mails, and pulled this mail run while his regular engine was in the shops. He decided that after the old gal was rebuilt she should be equipped with one of the new-fangled electric headlights for the mail run. General Manager Thomas agreed and soon the huge carbon-electric novelty arrived in Atlanta.

This photo (see next page) belongs to Capt. J. T. Adams, of the N. C. & St. L. It was taken at Dalton in October, 1898, and

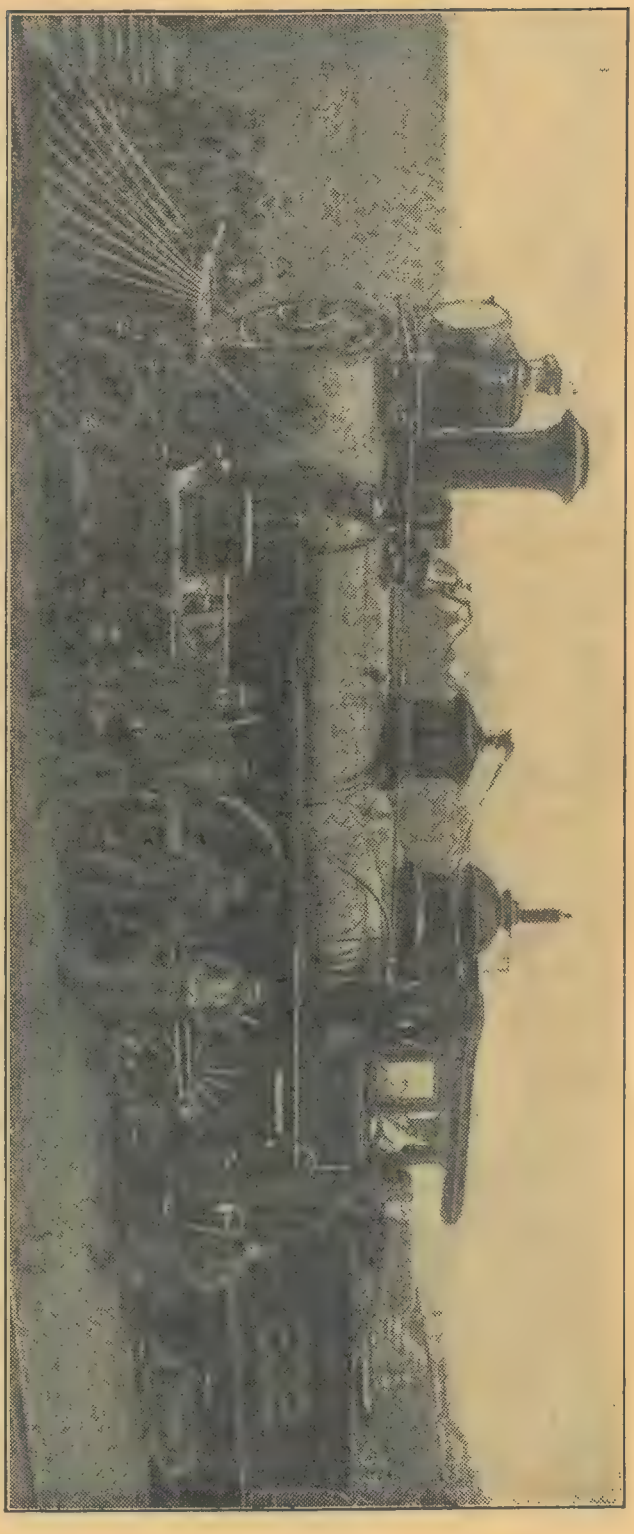
shows the 232 on her first run after a trip to the back shops, with the first electric headlight used on any locomotive in Atlanta.

The men in the foreground are (left to right) Conductor J. T. Adams, who is now running local freight; Brakeman J. J. Adams (deceased); Brakeman Charley Pritchard, now a yard hogger in the Atlanta yards; Brakeman John Terry (deceased); Engineer Welch (deceased) in the cab window; Fireman E. Finney (deceased) in the gangway, and Machinist Bill Ormond (deceased).

Ormond was headlight man for the W. & A. He installed the new lights and rode the engines to see that they performed satisfactorily. The brilliant arc light proved so successful on the 232 that the Southern Railway put one on a passenger engine shortly afterward, and soon both roads were equipping passenger engines with them.

Georgia did not see the first electric headlight, but it was the first state to pass a law requiring the roads to equip all main-line power with arc headlights. Tull C. Waters, an engineer on the Southern, now a full-fledged lawyer, was state chairman of the B. of L. E. legislative board at the time. It was mainly through his efforts that the law was enacted in 1908.

When the old bell-cord signal system was in use, the 232 had a beautiful-



No. 232 of the Old Western & Atlantic (N. C. & St. L.), the First Locomotive to Use an Electric Headlight Out of Atlanta, Ga.

toned cab bell, and when the air whistle was installed Welch used the old engine bell as a doorbell in his home at Atlanta. The 232 was damaged in the fire of 1905, but the engineer recovered his eagle from the ruins. His widow now has it in her home.

"My husband was very fond of his engine," says Mrs. Welch, "and being foolish about brass work, he kept her shining like gold. When he pulled special trains or had high dignitaries as passengers he always decorated the 232. On such occasions I usually helped him. In the tip of each wing of this eagle you can see a hole through which we ran ribbons from the cab to the headlight. We decorated the cab also and he would string red, white, and blue lights around the engine.

"I remember one day, shortly after the headlight was put on the engine but before the country people had seen it, I helped him to fix her up for a very special occasion. The daughter of the late Sam Jones, the famous evangelist, was getting married that afternoon, and a special car had been arranged to carry the party to Chattanooga."

The bride was a friend of the Welches, so Mrs. Welch rode the train. After leaving Cartersville, the Jones home town, the hogger pulled his whistle cord again and again.

"What's wrong with that engineer?" one of the passengers grumbled. "He must be drunk!"

Mrs. Welch couldn't stand for that, so she said: "I am the engineer's wife and I want you to understand that he is *not* drunk—he doesn't even touch whisky! He has a bridal couple on the train and is whistling to express his wishes for their happiness."

In 1921, three years before John Welch passed away, the little old engine was sold to the Georgia Car & Locomotive Works in Atlanta. She is probably on duty right now in some logging camp. Can any reader supply her recent history?

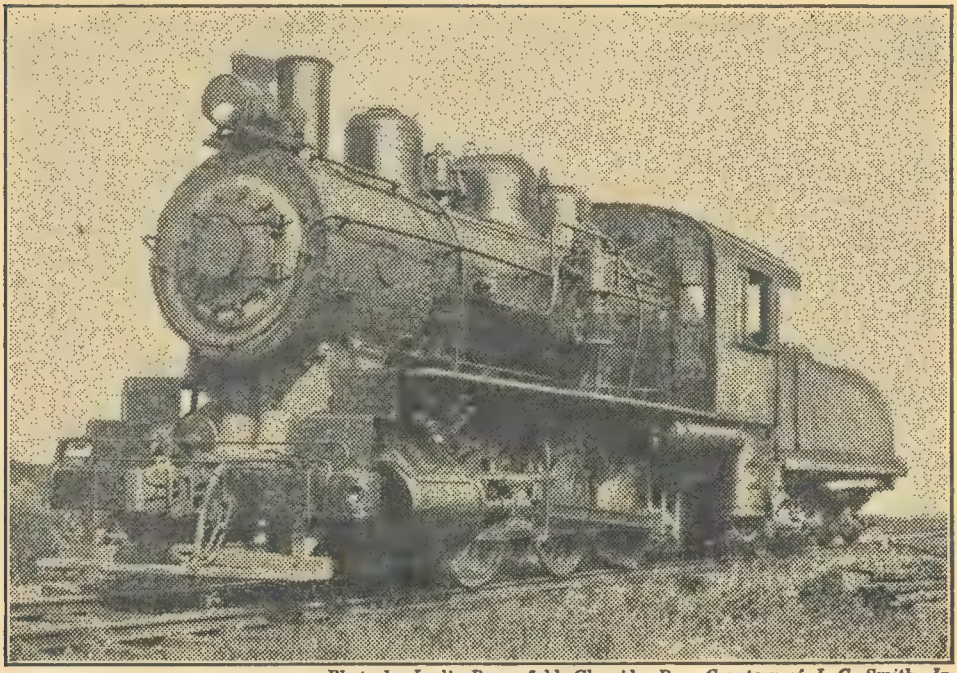


Photo by Leslie Broomfield, Glenside, Pa.; Courtesy of J. G. Smith, Jr.

Old No. 51 of the Thirteen-Mile Quakertown & Bethlehem Railroad in Pennsylvania. This Pike Was Built Out of Quakertown With the Intention of Reaching Easton and Bethlehem, but Was Never Finished Beyond the Durham Iron Furnace of Revolutionary Days. It Is Now Slated for Abandonment

Train Dispatcher Claims World's Record

Frank J. Safer

FRANK J. SAFER, a Wabash employe for almost 56 years, claims that his 54 years and more as train dispatcher sets a world record. Frank was born Dec. 13, 1862, learned telegraphy in 1878, worked for the Western Union a while, and then started his long railroad career July 8, 1881, as night operator at Campus, Ill. From that day till May 1, 1937, he was continuously employed on the same road.

In 1882 he was sent to Bement, Ill., as night operator; and a year later to Forrest, Ill., as dispatcher's copier. This territory—between Chicago and Bement—covered 162 miles of single track. Business was more than good, trains were thicker than fleas on a hound's back, and it proved impossible for one dispatcher to handle the work efficiently, even with the aid of a copier. So on April 13, 1883, Wabash officials split the territory at Forrest and put on three more dispatchers, including Frank Safer, to handle the 60 miles between Forrest and Bement.

Frank, who was then less than twenty-one years old, looks back to that promotion as the biggest thrill in his life.

"In the eighties," he recalls, "we had real winters. All passenger trains had to be double-headed and even then would often stick in snowdrifts. It was not unusual for engines to die on the main line between stations. In one instance four passenger trains tied up at Manhattan, Ill., for five days, while the company fed the passengers."

One stormy day in 1885, when wind was high and snow was deep, first No. 4 double-headed out of Decatur with a snowplow and chugged along all right until she reached Mansfield. A section boss there reported snow so heavy that no plow could get through. No. 4's conductor, Charlie Conklin, happened to be a telegraph operator. Safer called him to the key and discussed the situation. He ordered Conklin to wait for second No. 4, and then couple the four engines together with the plow and a caboose in an effort to force a way through the white barrier.

The quadruple-headed train put up a tough battle and eventually cut through the last big drift on Blue Ridge hill. So deep was the snow that it was almost impossible to see the engines above it, and every cab window had been torn away by the struggle. But the road was opened!

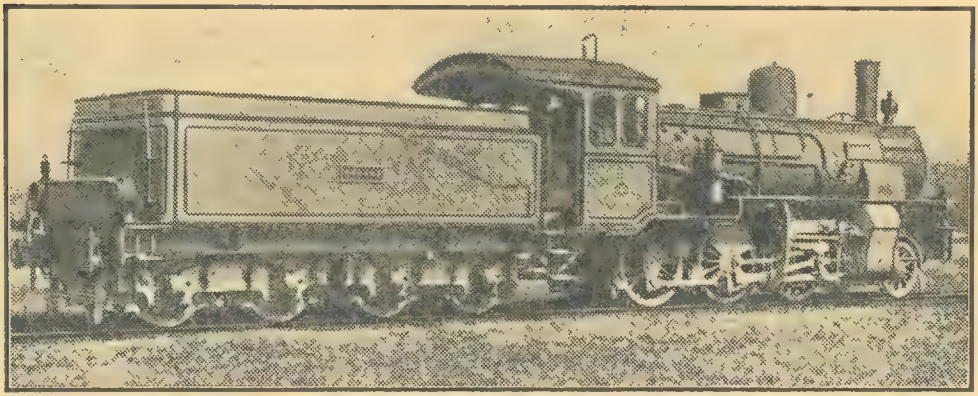
Trainmaster F. A. Dunn met the train at Forrest. Learning what had happened, he flew into a rage and wanted Safer fired. An investigation was held that evening. The assistant super, F. L. Tompkins, told Safer, "Never take a chance like that again!" but added proudly: "However, I give you credit. Because of you, Mr. Safer, the Wabash is the only road which brought a train into Chicago today from the south!"

Although Frank issued well over a million train orders in his long career, he never caused any deaths, even indirectly, nor a nickel's worth of damage to company property. His advice to young train dispatchers is: "Never take a chance; it doesn't pay. Better be censured for a delay than for an accident. And don't worry; you're not paid for that, especially when off duty."

If Frank Safer were pressed, he could tell of wrecks on almost every mile of track between Chicago and Bement; also between St. Louis and Danville, the latter being the territory he worked for the 22 years preceding his retirement.

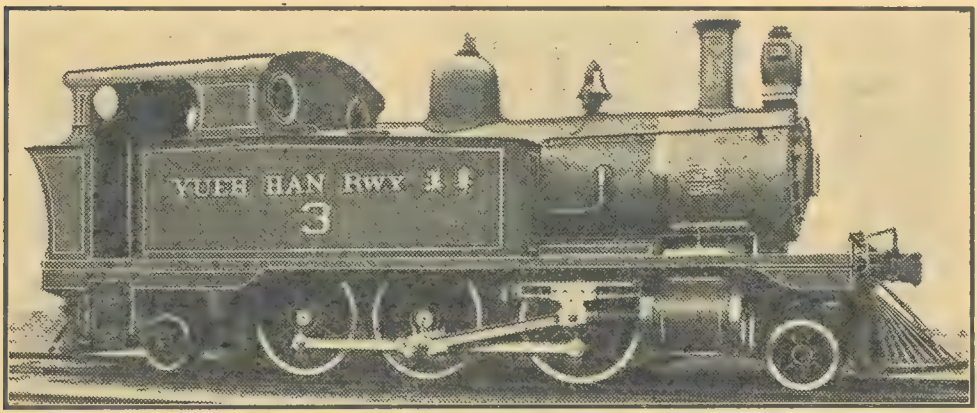
On the night of the Chatsworth disaster, August 10, 1887, when 82 lives were lost, Safer had just finished his Wabash trick at midnight and was pressed into service to handle Toledo, Peoria & Western trains east of Eureka, Ill., on account of the wires being down west of Eureka. For humanity's sake he took over the job, even though he was not familiar with one foot of the TP&W. The TP&W still owes Frank Safer for that night's work. His pay is fifty years overdue.—H. A. Bolinger, Wabash operator, Baylis, Ill.

Some of the Motive Power in War-Torn China



From James Byrne, East McKeesport, Pa.; agent for Moore's Ry. Photos

China Has 8500 Miles of Railway. Here Is No. 1 on the Pingsiang-Siang Line



From Collection of Joseph Lavelle, 4615 66th St., Woodside, N. Y.

This Old Gal Was Made by the Cooke Locomotive Works in Paterson, N. J.

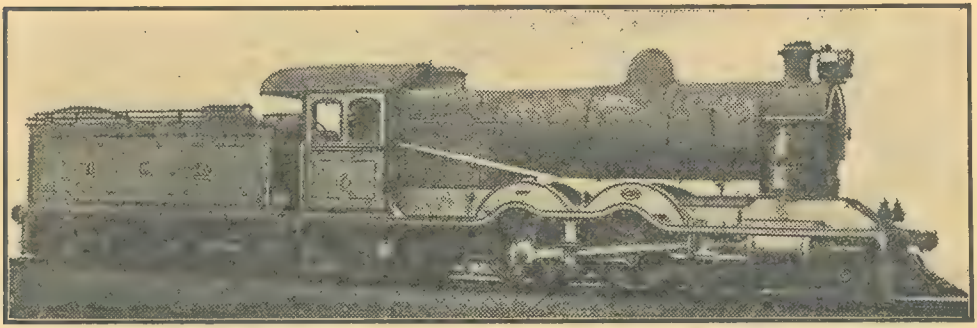
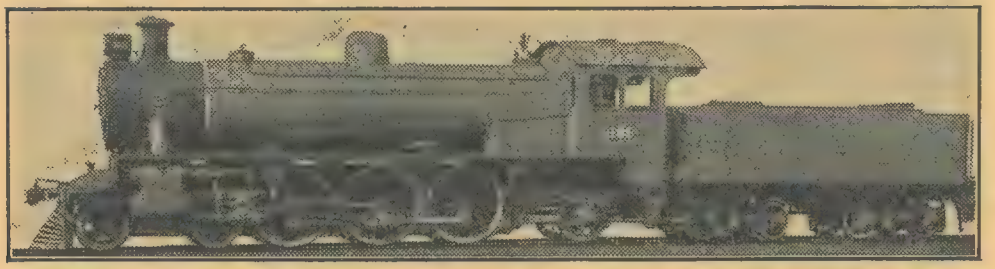
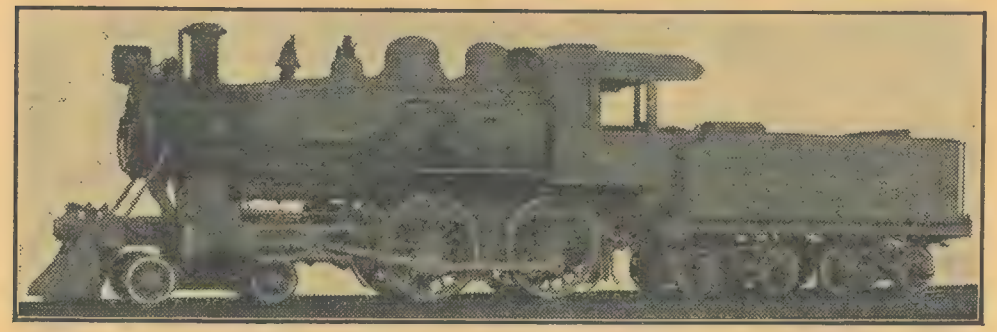


Photo from James Byrne

And Above We See No. 3 on the Taokow-Chinghua Railway. Now Turn to the Five Baldwins Pictured on Page 127. They Are: (Top) No. 21, Sunning Railway; Built in Jan., 1934. (Second) No. 195, Peking Mukden Railway; Built in 1921; (Third) No. 29, Yunnan Kopei Railway, Built in Sept., 1929; (Fourth) No. 27, Canton Samshui Railway; Built in 1919; (Bottom) No. 281, Tientsin Pukow Railway; Built in 1929





On *the* Spot

FROM Miss Lois M. Patterson, of Chicago, comes a clipping about a train being delayed by a beaver at Penfield, New Brunswick, Canada. It seems that Mr. Beaver had undermined a box around the intake pipe leading from a lake to a railway tank and filled it with mud and sticks.

Now and then such incidents are brought to our attention. The other day, for instance, a squirrel tied up a stretch of the Lackawanna by having the misfortune to step on a third rail. No doubt you remember that one in Ripley's "Believe It or Not," an ant stopping a train. Maybe you saw that newsreel a few years ago which pictured an Italian train fighting a dense swarm of locusts.

We've printed articles about the ants in South Africa which eat railway ties and telegraph poles so persistently that concrete now has to be used, and various jungle beasts and other animals which wandered across the track at the wrong time, and birds flying into engine cabs, and fish in locomotive tanks, and old prints showing trains blocked by herds or buffaloes or plagues of grasshoppers so that the crew had to get out and shovel the pests off the rail.

Last summer a baby sparrowhawk flew or fell into our office on the seventh floor of the Sun Building, New York, temporarily disrupting the production of this magazine; and got his picture printed in The Sun the following day.

We christened the little fellow "Weehawken," carried him home in an envelope box, fed him mostly raw meat, and raised him until he was old enough to fend for himself. Then we took the bird on what was probably his first and last railroad excursion—on the Jersey Central—to a mountain resort, Glen Gardner, N. J., where we set him free in the deep woods. And was he glad to get away! He even trilled a little song of thanksgiving before he vanished.

But getting back to the original subject: We'd like to round up a lot of true anecdotes about birds, beasts, fish and insects which have interfered with railroad operation. How about it, readers? Those of you who have any such information to give, to liven up our "Spot" department, please send it to us at 280 Broadway, New York City. Most of all we'd like to get facts based on personal experience.

WE'RE still counting votes on the November issue. For the benefit of new readers, this refers to the coupon we print on page 143 every month to check up on the most popular stories, features, and departments. Readers who don't want to clip the magazine usually write their votes on postcards or letters. Here are the November returns to date, listed in order of popularity:

1. Student Brakeman, Ed Samples
2. True Tales of the Rails
3. The Broken Drawbar, James W. Earp
4. On the Spot
5. By the Light of the Lantern
6. How I Ran Trains in Mexico, H. T. Oliver
7. The Mountain Type, Arthur Curran
8. On the Night Freight, W. F. Knapke
9. Trains Making Good (The Green Diamond)
10. Model Railroading, David Marshall
11. Fired Again, Charles Layng
12. I. E. P. C. (Railroad Camera Club)
13. Railroaders in Bronze, Charles F. Carter
14. Canadian National Locomotives (Part III)
15. The Sunny Side of the Track

* * *

JOHN THOMAS, of Glasgow, Scotland, well known to readers of Railroad Magazine, is the author of a new book, "Obstruction — Danger: Stories of Memorable Railway Disasters" published by Wm. Blackwood & Sons Ltd., Edinburgh and London; price five shillings. In addition to the most appalling smash-ups in the history of the British Isles, the author covers a few outstanding wrecks of North America. Judging from the reception accorded to his material in Railroad Magazine, this volume will have a wide sale.

The author has one distinction, at least. He is the only resident of a foreign country who has ever succeeded in selling us a fiction story.

His new book, which we Americans think is poorly titled, is nevertheless written in a dramatic and yet accurate style which compels attention through all of its 276 pages. The fact that Mr. Thomas has had three fact articles and even a fiction yarn printed in a magazine whose chief circulation is in the United States and Canada is, we think, sufficient evidence that "Obstruction—Danger" is not too technically British to fascinate North American readers.

The Reader's Viewpoint

DOWN here in southern Oregon, I am an old rail awaiting daily the whistles of approaching timecard trains. In the daytime a northbound and a southbound passenger; at 10.25 p.m. a northbound; and about 5.30 a.m. a southbound. In between, freight drags amble along.

From over the mountain to the south we can hear the wail of the northbound *Shasta Limited* miles away. She winds around until she makes Glendale, east of us. Then she swings west and comes into view of the house an eighth of a mile away, flashes by almost in our front yard, and disappears behind a hill.

Almost from my desk I can see trains on a stretch of track not long enough to hold the entire train. Orchard and shade trees obstruct the view on both sides. Into this open stretch the train emerges, each car passing in review much as they did in early days of the movies, the engine being out of sight before the tail end comes in view. They cannot slip any extra coaches past me without my knowing it.

I began railroading in the days of Miller hooks, links-and-pins, and signal cords strung through the lamp brackets in the center of the coach ceilings. I sit and watch the varnished cars appear from out of nowhere until the last faint whistle dies away in the distance, marking the end of another 24 hours in the swiftly passing years.—R. E. HOUSE, SR., Glendale, Ore.

* * *

IF Congress were to impose a limitation on the lengths of trains, one inescapable result would be a corresponding increase in grade-crossing accidents. Such a bill, causing more trains to be run, would also subject a greater number of employes to the hazards of train operation, add unwarranted costs to moving traffic for the benefit of a few employes at the expense of the majority, result in delayed and poorer service, and reduce railroad purchasing power.

In 1936 the net income of all roads in the United States was only $164,630,000. Influences already in effect will reduce this in 1937 by $375,000,000, leaving a deficit of more than $200,000,000 on the same volume of business.

It is evident, therefore, that the railroads as a whole cannot pay the added cost imposed by the train-limit bill without applying for higher freight and passenger rates. In the event these were not allowed, then the railroads would have to offset the increased costs by reduction in employment of men of all classes on the entire railroad.—JAMES B. HILL, President, Louisville & Nashville Railroad, Louisville, Ky.

* * *

FEW non-railroad organizations have used a railroad dining-car for a meeting place. However, 40 members of the Kiwanis Club of DeKalb had that opportunity Sept. 20 when they met in a Chicago & North Western diner. After a turkey dinner the Kiwanians listened to a talk by W. A. Langlands, C&NW Master Mechanic for the Chicago Terminal, on the merits of Diesal-electric power vs. steam. Much of the speaker's time was taken in answering questions of club members, who showed deep interest in the subject. The meeting was arranged by H. E. Thiele, C&NW agent here.—WAITE W. EMBREE, De Kalb, Ill.

* * *

AS a constant reader of RAILROAD MAGAZINE, I have been impressed many times by your very evident desire to present the facts fully and accurately. In my opinion, however, the article entitled "204,000 Square Miles of Land Given to Railroads" (*Nov. issue*) is grossly misleading, since it conveys the false impression that the Federal lands granted to pioneer railroads were gifts.

What the Federal Government really did was to make a kind of trade with certain pioneer roads under the Land Grant Acts. In exchange for certain wild lands, the railroads agreed to repay the Government in reduced rates on Federal troops, property and mails. These payments in the form of rate concessions have been going on from the time the railroads were opened to the present; and, unless the laws are repealed or amended, they will continue to go on as long as the railroads exist.

Let me cite a specific case: The Illinois Central received about two and a half million acres of land-grant lands, which had been on the market for years and could have been bought outright at the time the grant was made (in 1850) for $1.25 an acre, or a total of $3,244,000. Up to the present, the IC has paid the Federal Government approximately $11,000,000 in the form of rate reductions for those land-grant lands, or about three and one-half times the maximum value of the lands at the time of the transfer.

Dr. C. S. Duncan, A. of A.R. economist, who has written an illuminating brochure on the subject, points out that "The value of the land

grants, at the time granted, could not have exceeded 100 million dollars."

And: "As a result of the construction of the railroads, the Federal Government was able to double the value of its retained (alternate) sections and to sell them. Furthermore, taxes were paid by the railroads on these lands as patented; and the development of the West was made possible, which would have remained a wilderness without the railroads."

"Concurrently," says Dr. Duncan, "the Government is receiving about six million dollars annually as direct payment for land grants from reduced rates, in addition to all indirect payments received." The indirect payments refer to many millions of dollars which the Government is saving—and has saved—on the haulage of troops, military supplies, freight for the drought-blighted areas, etc.

Dr. Duncan's analysis leads to these conclusions: The Government has been compensated many times over for all lands granted to railroads—far more than the legislators dreamed of when imposing the conditions.

Hence, these conditions should no longer be regarded as an obligation on the part of the railroads; and, if continued, constitute an unfair burden, demoralizing the rate structure of the country—especially since no corresponding concessions are demanded of competitors on highway, waterway or airway.

Therefore, the original terms of those old land grants should be revoked in fairness to the railroads of today.—C. J. CORLISS, Manager, Public Section, Ass'n of American Railroads, Washington, D. C.

* * *

REFERRING to "Railroaders in Bronze," by Charles F. Carter (*Nov. issue*): There is a large statue of Samuel Sloan, president of the Katy and former president of the Lackawanna, standing in Hoboken, N. J., on the square just south of the ferry entrance.—ROBERT A. LEMASSENA, 398 N. Maple Ave., East Orange, N. J.

* * *

MR. CARTER forgot to include the bronze statue of James J. Hill which stands on the Washington University campus in Seattle.—GEO. RICHARDSON, W. 245 Main St., Spokane, Wash.

* * *

IN addition to the "Railroaders in Bronze" mentioned in Mr. Carter's article, there is a fine equestrian statue of Gen. Wm. J. Palmer, builder of the D&RG, in Colorado Springs, Colo.—R. W. MICHAEL, Littleton, Colo.

* * *

THE bronze bas-relief of Wm. J. Palmer pictured in your Nov. issue is located in the Denver Union Terminal.—H. I. SCOFIELD, Passenger Traffic Mgr., D&RGW, Denver, Colo.

(EDITOR'S NOTE: *Thanks for the correction. The caption under our picture said the bas-relief was located in Mexico City. This error was not Mr. Carter's but was due to incorrect information from the news photo service which sent us the picture.*)

* * *

THAT reference in Mr. Carter's article to the famous sea-going railroad of Florida, reminded me that I was a member of V. C. C. Camp No. 1, between Miami and Key West, which was swept away by the great hurricane of Sept. 2, 1935, in which several hundred World War veterans perished. A Florida East Coast rescue train sent to the Keys was blown off the track.—GEO. GLAZEBROOK, (*ex-fireman, D&RGW*), U. S. Veterans Hospital, Excelsior Springs, Mo.

* * *

THE article on single-driver engines by John W. Merrill (*Nov. issue*) recalled to my mind the *Stella*, which pulled the pay-car over the Western and Toledo divisions of the old LS&MS (Lake Shore & Michigan Southern) in 1880 and later. The *Stella* had a tank on the same frame as her boiler which held a ton of coal. She was dolled up with a brass dome and brass bands, bright paint and a red, white and blue star in the center of her drivers. If she stopped on center she had to be pinched off. She visited us once a month.

How many old-timers at Elkhart remember waiting in the cold to draw their pay when Paymaster Jud Hinkley would slam the book shut, saying, "That's all," and sneak out the back door for lunch while Brakeman Zed Raswell would herd us out and lock the door, telling us to come back that night?

Mogul Number 495 made up for the *Stella's* shortage of drivers by having three pairs of them, but not enough to stick to the rails. She invariably climbed off at the first switch and climbed back again at a three-throw.—J. A. SNOOK (*retired NYC foreman, Stores Dept.*), 15 N. Balch St. Akron, O.

* * *

WE have a roadbed in this county on which no rails ever have been laid, yet taxpayers are still paying interest on bonds issued in the '70's to aid in building the road. The bonds were sold to "innocent purchasers," so under the law they have a right to interest even if the voters never received any equivalent. Is there any law or any means to put an end to this swindle, perpetuated for more than sixty years?—GEORGE PARKE, Farmhaven, Miss.

Christmas on the High Iron

SANTA CLAUS has gone modern. The old fellow drove his reindeer team alongside a special train on the Soo Line here last Christmas Eve, rode in luxury to Thief River station behind engine Number 711, transferred his plunder to a truck and was driven—pick up and deliver, see?—to the city auditorium, watched by a large and enthusiastic crowd, where he passed out his presents and extra rations of candy and popcorn.

The railroad men who had the honor of handling the Old Boy's special train were Condr. J. Yotter, Engr. H. Kinghorn, Brakemen Ed Holmstrong and M. Strom, and Fireman M. Stenberg.—JOHN WARD, Thief River Falls, Minn.

* * *

FOR Christmas last year Mrs. Frank Cook, of Charlemont, Mass., on the Boston & Albany, hung beautiful big bright red lights in front of her home on the edge of town. Now, the lights stared right into the eyes of approaching engineers. You can have three guesses as to what the approaching engineers did. You needn't write what they said later, as such language is unmailable. However, Mrs. Cook was persuaded to take down her decorations and normal train operation was resumed.

That reminded me of a similar incident on the Central Vermont in 1908. I was on Number 91 on Christmas Eve en route from Bethel to Randolph, following Number 1 out of the former station. As we were rounding a curve three miles south of Randolph, a red light showed up on the center of the track.

Engr. Fred Trudeau took it for the tail-light of Number 1, so he blew out his flag and pulled up the line until he could see what it was. The red light proved to be a kerosene lamp behind a farmhouse window, where a husking bee and dance were in full blast. After a brief argument the farmer moved his lamp and Fred continued his journey.—F. G. MAXFIELD, 813 Beech St., Manchester, N. H.

Courtesy of Chas. S. Hayward, Box 24, Los Gatos, Calif.

Yuletide Festivities Are Held on Southern Pacific Trains 123 and 140 Every Dec. 24th under Auspices of the Los Gatos Chamber of Commerce. A Jolly Bunch of Commuters Riding the 54 Miles between Los Gatos and San Francisco Celebrate in Gaily Decorated Coaches. They Sing Carols and Jingles to the Accompaniment of a Real Live Orchestra Directed by a Master of Ceremonies at a Loud-Speaker Microphone, while Old Santa Himself Distributes Glazed Fruit Candies and Trinkets down the Aisles and at the Few Stops between Los Gatos and the Big City

Information Booth

AS I was a telegraph operator on the Southern's Danville Division at the time of "The Wreck of the Old 97," now immortalized in song, I can state positively that the engine involved was the 1102; not any other, as some readers contend. I'll be glad to answer brief queries about that wreck.—THOMAS O. ACREE, 218 W. 12th St., Cincinnati, O.

(EDITOR'S NOTE: *If you query Mr. Acree, enclose a self-addressed stamped envelope.*)

* * *

WHAT was the "Elo & Tionne" R.R. and where did it run? I saw a passenger car so marked on the Sheffield & Tionesta.—EDWIN PORTER, 1117 Carlisle St., Tarentum, Pa.

* * *

AS a section laborer I helped to clean up after a bad wreck on the "Poca" Division of the Norfolk & Western last June 30th. The engine hauling Number 85, a time freight, plunged off a trestle 185 feet high on to a state highway, where the boiler blew up and was hurled 500 feet back onto the right-of-way. Four men were killed: Engr. W. W. Sneed, Fireman Ezra McHaffa, Head Brakeman James Ball, and Clark Maxey, 20-year-old son of the section foreman; and 53 cars were wrecked.—BILL DAVIS, Elkhorn, W. Va.

* * *

ANSWERING Kenneth Van Natter: The *Twentieth Century Limited,* west bound was running in three sections on a foggy night in Dec., 1923. The first section hit an automobile at a crossing at Forsyth, N. Y. The second section stopped; but the engineer on the third section did not see her red signal, so he ran into the second section, killing 12 passengers. None of the crew was hurt. The engineer and flagman involved in the wreck have since died, and the grade crossing has been eliminated.—JAMES PETERS, 2036 Eastern Ave., Wesleyville, Pa.

* * *

"SPOT" is a pet dog of Chesapeake & Ohio men at Columbus, O., who share their lunches with him and take him rabbit hunting. One day, having no transportation, Spot boarded an engine for Russell, Ky., 110 miles from home. Arriving there, he sauntered out to see the town, and was left behind. Two weeks later he showed up in Columbus with feet bruised and bleeding and his ribs sticking out. The next invitation for a ride Spot receives must be accompanied by a contract to bring him home.—JOHNNY COUTS, 6900 Apple St., Pittsburgh, Pa.

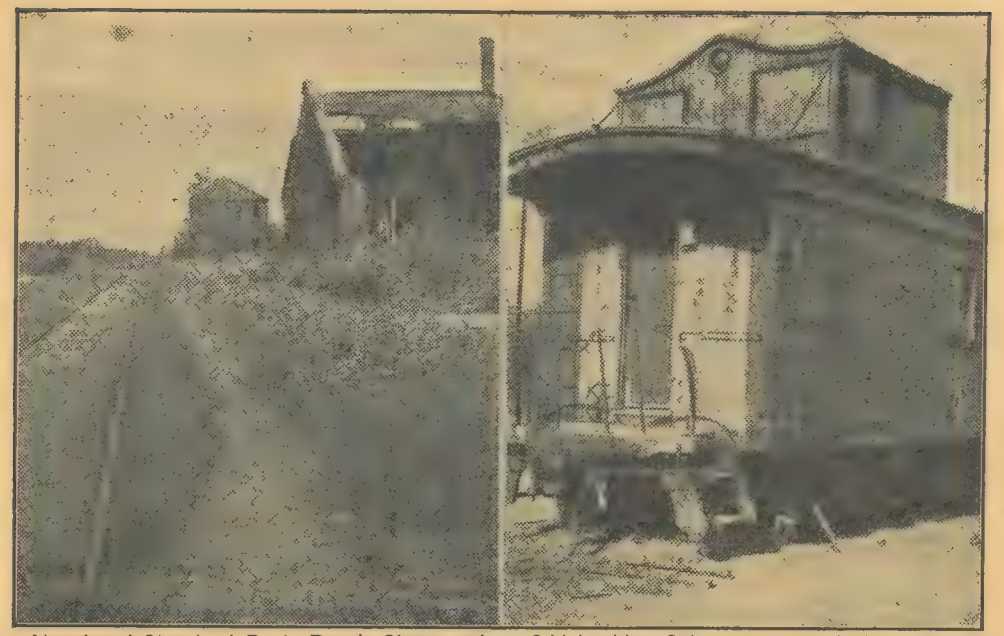
* * *

INFORMATION wanted about John Liston, five feet five inches, black hair, blue eyes, blue coat and trousers, brown shirt and white shoes. Last seen Oct. 11, hopping a C&NW freight to West Chicago.—M. L. LISTON, 572 Hawthorne Ave., Elmhurst, Ill.

* * *

SPEAKING of railroad stamps: To commemorate her centenary of railroad service, Cuba has just surcharged with appropriate inscription 1,500,000 copies of her postage stamp. (Scotts No. 285). A history and photo of Cuba's first locomotive appeared in May '36 RAILROAD STORIES. Havana central station, where the loco is on display, is pictured on a Cuban stamp issued in 1928. And now Austria is issuing railway centenary stamps. Readers interested in the subject should read "100 Years of Austrian Railways," by W. S. Boggs, in Sept. '37 RAILROAD MAGAZINE.—BOB WHITE, Saranac, Mich.

Australia's First Streamlined Loco, No. 620 of the South Australian Rys., Built in 1936 at the Islington Shops in S. A. This Pacific Type Has 18½x28-Inch Cylinders, 200 Lbs. Boiler Pressure per Square Inch, 25,000 Lbs. Tractive Force at 85 Percent B.P., and 140 English Tons Weight with Tender



Abandoned Streak o' Rust: Repair Shops and an Odd-Looking Caboose on the Jacksonville & Havana, Snapped by Richard Phillips

Burlington Route

ANOTHER historic railroad has just sung its swan song! The 61-mile Jacksonville & Havana in Illinois (formerly part of the old Chicago, Peoria & St. Louis) was authorized by the Interstate Commerce Commission to discontinue service over its 41 miles of line between Havana and Jacksonville and over the 19.9 miles of the Burlington's tracks between Jacksonville and Waverly which it had been using; and now the entire J&H is about to go on the junk pile.

The last train to ramble over this pike was a freight which ran a few weeks ago to clean up all rolling stock along the line and move it to the terminals. For the last few years the J&H had been unable to make expenses, and thus ended one of the oldest roads in the Midwest.

The stretch of CP&StL between Virginia and Pekin was built in 1853, and the one between Virginia and Jacksonville dates back to Civil War days. In its prime this road operated between Jacksonville, St. Louis, Peoria, Havana and Springfield, but couldn't stand the pressure of stronger rival roads plus motor competition, and so was broken up in 1926. Part of it went to the Chicago & Illinois Midland; part became the Chicago, Springfield & St. Louis; part was acquired by the Illinois Terminal, and the remainder became the ill-fated J&H.

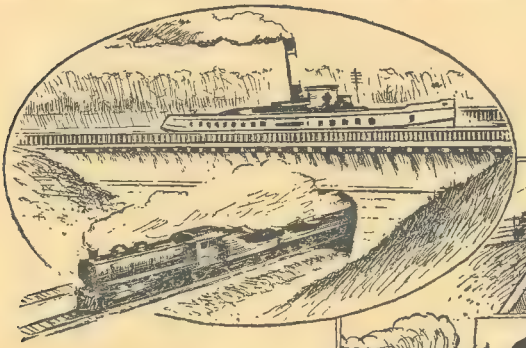
This pike is now abandoned. Its scrap iron, steel and other metals are being sold at top prices for munitions to make the world *un*safe for democracy. The other day I made a camera tour of the old line, and was saddened to see that the buildings and some of the rolling stock were falling apart from decay. In some places the weeds were so high that I couldn't even snap good pictures.—Richard Phillips, 854 S. Illinois St., Springfield, Ill.

* * *

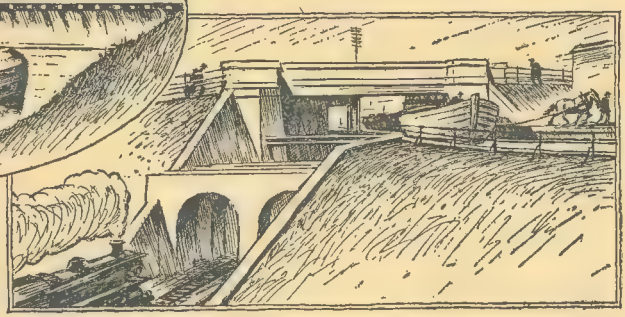
GOOD news from southwestern Colorado! After laying idle since 1931, the 17-mile Silverton Northern Railroad, connecting with the D&RGW, is getting ready to resume operation under auspices of the Treasure Mountain Gold Mining Co.

Organized in 1895, this three-foot-gage pike built northward for 14 miles from Silverton to Animas Forks, and in 1910 took over another road, the Silverton, Gladstone & Northerly, which ran between Silverton and Gladstone. Then came the depression. Owners of the SN discontinued service but, not losing hope, refused to tear up the rails. Recent events have justified their confidence in the little old pike. A few days ago the first train in seven years made a trip between Silverton and Eureka, while a force of 20 laborers was put to work repairing the roadbed and equipment. It is more than likely that this slim-gage pike will be back on the job again before Christmas. Hooray, and good luck!—Herbert Foote, San Juan Mission Hospital, Farmington, N. M.

Railroads That Run Under Canals



Double Trackage of the German National Railways Runs under a Ship Canal (Shown above) near Stettin, Germany



The Great Western of England Passes under a Canal and a Highway at the Same Point—at a Place Called Three Bridges, Southall, Not Far from London

IN REGARD to the drawing of a railroad running under a canal at Ambergate, England (*Nov. issue*): That arrangement can be duplicated here in Toledo, where the Miami-Erie Canal crosses over the NYC. But there is no longer any water in the canal.—HERMAN HAACK, Toledo, O.

* * *

ANOTHER place where railway tracks run under a canal is at Dalmuir, Scotland, the canal being the Forth & Clyde and the railway being the old North British (now part of the LNER system). At least, this arrangement existed at the time I lived in Scotland, some years ago.—HUGH SMITH, 10455 Corliss Ave., Chicago.

* * *

MAIN-LINE passenger tracks of the NYC used to pass under the old Erie canal east of Washington Street in Syracuse, N. Y. Then the canal was abandoned and became Erie Boulevard. Now the tracks have been abandoned since the new station was built.—F. T. VAN BUSKIRK, 1947 W. 100th St., Cleveland, O.

* * *

PENNSY tracks used to pass under the Delaware & Raritan Canal at Trenton. This canal was once the packet route between New York and Philadelphia. It has since been abandoned.—H. F. HENDRICKSON, 2549 W. Seltzer St., Philadelphia, Pa.

(EDITOR'S NOTE: *A. A. Schrum, 145 Churchill Ave., Trenton, N. J., has snaps of the old D&R Canal and the Pennsy main line over which it passed. Readers who sent similar facts or pictures are: Fred Turland, 68 Spring Grove Rd., Hounslow, Middlesex, England; B. Murton, 62a Nevern Sq., Earls Court, London, S.W.5, England; C. W. Burns, Canton, O.; Dr. F. H. Safford, Phila., Pa.; C.J.E., Boise, Idaho, and R. L. Van D., Camden, N. J.*)

A Section for Juice Fans

IN his article on "The Man Who Modernized Railway Travel" (*April issue*) H. R. Edwards speaks of the introduction of the first aluminum interurban car in 1931 and of the first aluminum Pullman in 1933. This reminds me that the first aluminum street car, Number 1376, was built in 1926 in the Cleveland Railway shops and exhibited during the American Electric Ry. Ass'n convention.

Of the more important cars built by the Cleveland Ry. fifty were trailers built twenty-five years ago and twenty-five were motor cars built fifteen years ago. In 1925 the last lot, seventy-five motor cars, were turned out. All the latter were of the Peter Witt type. While he was city traction commissioner, Peter Witt patented this type of car, which has front entrance and two center exits.—HOWARD DOBSON, 3300 W. 123rd St., Cleveland, O.

* * *

UNLESS the people of Glendale, Calif., vote for modern interurban cars, the Glendale-Burbank-Los Angeles lines of the Pacific Electric will run only obnoxious busses. Such busses have been plying their way on this line for almost a year. Through a local paper, *The*

Glendale Star, the commuters have been protesting against bus service.—GERALD SHARP, 3618 Revere Ave., Los Angeles.

* * *

CORRECTION: Several readers with keen eyes point out that the caption "The Old and the New on the Key System," which appeared under a couple of photos in our Nov. issue, page 134, is somewhat misleading because, although the lower picture shows a train running on the tracks of the KS, the train itself belongs to the Sacramento Short Line or Sacramento Northern, *not* the KS.—EDITOR.

* * *

ANSWERING Bud Cottle: Possibly the reason why the Pacific Electric was not given more space in James Holden's recent article on "Interurbans" was because the PE is one of the most backward juice outfits in the country. Most of its cars are obsolete and poorly maintained. The roadbed is poor, the crossings are badly protected, and the line's city approaches are entirely over city streets, hence slow schedules. I am a railroad booster, but the PE is one pike which gives a fellow very little material to boost with.—R. E. MELCHING, 1448 S. Dunsmuir Ave., Los Angeles.

* * *

HAVING lived near the Pacific Electric and often traveled that line, I submit the facts for Mr. Cottle's benefit. The cars used on this and other runs are all-steel, almost identical with those of the Key System except that the PE equipment is about 30 per cent shorter because of the short-radius turns which the PE must negotiate in downtown Los Angeles. They weigh 54 tons apiece and are capable of 75 m.p.h. but seldom run over 55 or 60 because of poor track and frequent stops.

Between Los Angeles and San Bernardino is 58 miles, Mr. Cottle, *not* 76. Fastest running time is 106 minutes; locals take as much as 150 minutes. The fastest cars make about a dozen station stops, in addition to a dozen or more crossing stops in Los Angeles and many blocks of slow running.—PAUL G. THOMAS, Box 68, Santa Maria, Calif.

* * *

AFTER 51 years of service, the old Holyoke Street Railway has given over to the busses. At about 1925, when service was at its peak, the Holyoke and its subsidiaries had 60 miles of line.

Then in 1930 the Holyoke began to abandon its service. The first to go was the Holyoke-Westfield line, which has never since been replaced, either by bus or steam trains, although steam freight service still connects the two cities on the Holyoke & Westfield. In 1936 the entire line between Northampton and Mountain Park and between Holyoke and Springfield was abandoned. And then 1937 saw the fold-up of other stretches. The last was the Chicopee Falls

Old and New Methods of Transportation: A Lumbering Wagon Drawn by a Team of Oxen Meets the South's First Streamlined Train, The Diesel-Electric "Rebel," Which the GM&N Operates between New Orleans and Jackson, Tennessee

Photo by A. R. Alter, Santa Fe Ry. File Room, Winslow, Ariz.

Pacific Electric Car No. 32 at Echo Mountain, Calif., 3200 Feet above Sea Level, and Motorman D. W. Lankin; Photographed Sept. 27, 1936, Twelve Days after PE Service on the Mt. Lowe Scenic Line Had Been Discontinued as a Result of Fire Destroying the Famous Mt. Lowe Tavern

line. The final car to run in the city, Number 180, left the Mountain Park Pavilion at 12.35 a.m. Sept. 7 for the Holyoke car barns.

Many electric fans, including myself, crowded on board for the graveyard run; there was standing room only. With no ceremony other than the conductor's usual signal, the 180 slid away from the pavilion and down the long two-per-cent grade through the trees to the city limits. As there were no opposing cars, we sped along the almost deserted track without having to wait for signals.

When we reached the barns long after 1 a.m., the car was still full of passengers who had refused to leave at the last regular stop. They walked off with souvenir electric bulbs, placards, seats, etc. One fellow was caught trying to get away with the portable headlight. Incidentally, I have a few little snapshots of this line and its equipment.—ALAN E. MACMILLAN, 4 Central Ave., So. Hadley Falls, Mass.

* * *

TRACTION lines radiating from Dayton have but a single survivor since the Dayton-Xenia line folded up Sept. 24. Motorbusses operated by the same company have replaced cars. At the controls on the last run was Mylen Fitzwater, reputed to be the oldest motorman in Dayton.—RAYMOND WHITTON, 119 S. Roberts Blvd., Dayton, O.

* * *

THE 25-mile Buffalo-Niagara Falls line, International Ry. Co., has been abandoned and sold to a wrecking company. And of the Toronto Suburban Railways only two divisions, 14 miles, are now in service, being operated by the Toronto Transportation Commission. Until a few years ago there were *five* radiating lines, two of them 45 miles each.—J. A. MACLEAN, 19 Ontario St., St. Catharine's, Ont., Canada.

* * *

FIRST thing I turn to in RAILROAD MAGAZINE is "True Tales of the Rails." There I become a "rail" once more. I ride runaway trains, I have cornfield meets, and I sweat with dispatchers trying to get overloaded freight trains over snowbound tracks —in fact, I am young again.

Yes, I was a railroader—a juice railroader—for 25 years. Memories of those years and "the boys" I worked with are trooping across the page as I write. For instance, Bob Tanbark, roadmaster. Tanbark was the gent who dug the Ogden Canyon while building the SP cutoff across Great Salt Lake. In order to build this cutoff the SP borrowed him from the Utah I.C., the electric pike I was working on at the time.

A lot of laborers were making fills and laying rails, and of course they all had to eat. But the SP officials did not want any garbage dumped into the lake. So Tanbark did some tall thinking. At length he found a solution. He had a siding built in back of the boarding house, and on it he set out 14 gravel cars every morning. After breakfast the cooks would dump the egg shells and prune pits and so forth into

them, and then a work engine would pull the 14 cars, fully loaded, to the mainland to be dumped. Thus everybody was satisfied.

On the Utah I.C. we had a station called Summit, located on top of a mountain where the wind blew hard most of the time. The station was anchored to a huge flat rock by a log chain. When the wind was blowing so that the little depot just whipped round the end of its chain we knew that was a mild summer breeze, but when the depot stood in the air at the end of its chain the agent reported "high winds."

There were about 10 miles of track in a valley surrounded by high mountains. It was the hottest place I was ever in. Whenever we did any switching under the blazing sun, we had to wear ice packs under our hats.

How many of you remember "Jackrabbit" Myers, engineer on a freight electric motor? One hot summer day, when Myers was pulling a car of dynamite just behind his engine, the brakeman on the front end headed him into a siding. That was about 3 p.m., and they had 10 minutes to wait for a "string of varnish" (passenger train). A huge black cloud was rolling in over the mountains to the west.

Myers sat at his cab window watching anxiously. A thunderbolt formed in the dark mass above him and seemed to be heading for the car of powder. Myers saw it. He leaped to the ground, ran back, uncoupled the car from the rest of the train, jumped back into his engine, threw in his overhead switch, and pulled the car away just as the bolt of lightning struck the spot where the car had been. For this speedy action he won the nickname "Jackrabbit."

We had another hogger, Percy Nelson, who had the name "Racehorse" tacked onto him. It happened this way: Nelson was pulling a heavy drag. Delays, doubling hills, and pulling into the clear for the painted buggies every hour or so had forced our crew to miss two meals. On top of that, we went into the clear again for a passenger train.

"I will have to hold you there for about an hour," said the dispatcher. "You can't make Whitney and no other siding is large or long enough to hold you in between."

We were hungry. A fine-looking farmhouse was near the siding; a girl stood on the porch.

"Some swell-looking dame!" I said to Nelson. "Say, Percy, you're a ladies' man; go over and see if you can buy us something to eat."

Nelson and the head brakeman made their way to the house. "I'll go in," he said. "That ugly map of yours would queer us. You stay here by the front gate to help carry the grub."

Nelson went around the corner of the house. Suddenly he reappeared. *Suddenly* is the word. A huge bulldog was closing in on his rear end and we judged that the canine was about to make a coupling.

"Open the gate!" he shouted as he widened his stride. The brakeman grasped the gate in both hands, put the rim of his hat back, and tensed his muscles. Up to the gate dashed Nelson. But the brakeman shook his head and kept the gate shut.

There was nothing for the hogger to do but race around the house again. Once more he hove down on the gate with his throttle wide open. This time the brakeman opened the gate and Nelson shot into the clear, two inches ahead of the dog.

"Why in hell didn't you open that gate for me the first time?" roared the enraged hogger.

"Safety first, buddy," replied the brakefellow. "The first time around I could not have made the drop, I could not see daylight between you and the dog."

He sized up the engineer with admiration. "You're quite a racehorse," he added. "Racehorse Nelson." Thus a nickname was born.—F. A. Goldsworthy, 30 S.E. Main St., Blackfoot, Idaho.

The Answer to "What Was It?"

THE true tale "What Was It?" in October number excited much comment. As you know, Fred Spriegel, trainman on the old BR&P (now part of the B&O) told about seeing the headlight of a locomotive which apparently vanished when they came closer, 36 years ago. Members of his crew confirmed the story. All were puzzled. A few months ago Mr. Spriegel related the details to a boomer friend, Frederick M. Westcott, of Rochester, N. Y., who wrote it up for him and sent it to us.

The consensus of opinion among readers who commented on this phenomenon was that the crew of a coal train had run by their meet and were successful in covering it up. "But," says Mr. Westcott, "the physical characteristics of the road hardly support that theory," although he does think the coal-train crew did cover up some sort of "loose" railroading such as running over a switch and sneaking back.

There were so many good letters, with so much duplication, that we asked Mr. Westcott to pick out a few of the best for publication. You've already read James Deegan's letter in December "Spot" department. Three others are used this month. In the near future we will print "ghost train" letters from E. E. Higgins,

of Sanford, Me., and H. L. Adams, Chicago.

Nine other entries which deserve special mention but which we will not have space to print were submitted by Ralph A. Snyder, Salome, Ariz.; Charles L. Noble, Winnetka, Ill.; James B. Cain, Chicago; A. P. Cherry, Oakland, Calif.; R. G. Walsh, S. Braintree, Mass.; P. Josserand, Tulsa, Okla.; J. O. Eddington, Grapeland, Texas; Edgar S. Rosenberger, Quakertown, Pa., and Herbert B. Moore, Kansas City, Mo.

* * *

IN answer to "What Was It?" I think someone "overlooked his hand." It's asking too much of us to believe that all the members of a crew saw an approaching headlight that didn't exist.

My explanation is that the coal train ran past their meeting place; then the crew got together and agreed to cover their mistake by bluffing Mr. Spriegel's crew about "seeing things." Whether they slipped up because they forgot their orders or because the Silver Lake Jct. operator forgot to flag them is unimportant.

Back in the winter of 1911-12 I witnessed a similar incident on the old Aurora, Elgin & Chicago, an electric line operated by third rail and using heavy high-speed cars. At the time I lived near Wheaton, Ill., and commuted each day to Chicago—about 30 miles away.

The road was double-tracked from Chicago to a point about one mile west of the Wheaton station on the Aurora branch. The road forked at Wheaton—one branch going to Aurora, the other to Elgin. It was the custom for westbound Chicago train to proceed to the end of the double track and wait there for the incoming Aurora train. A spring switch was used so it was not necessary for the westbound train to stop and throw a switch to get onto the single track for Aurora.

My station was about a quarter-mile beyond the double-track ending, and about the same distance beyond that was a sharp curve. On this particular evening I was on the bottom step as soon as we passed out onto the single track, ready to alight at my station.

Suddenly the car stopped and we started backing up. At the same time the conductor brushed down past me. I was startled, but upon looking up the aisle and out the front end of the car I saw the reason—the headlight of the incoming Aurora train bearing down upon us. The conductor had evidently forgotten that we hadn't passed it on the double track.

We got back to the switch, which the con had to open, and then backed to a point of safety. The Aurora train pulled by, though it had almost come to a stop. How that train crew fared I don't know, but someone must have squawked, because a short time later I received a letter from the railroad company asking for my version of the incident.—Earl S. Fry, 315 Spring Ave., Naperville, Ill.

MR. SPRIEGEL, did it ever occur to you that two young rails, working on that section, might have borrowed a hand-car for their evening calling? They had checked up on all the regular trains and decided to take a chance on any extras. They were pumping the old hand-car up the hill. An oil-burning lantern, with a reflector on back, was their only light.

The slots you saw on the side of the supposed headlight were the nickel-plate braces that ran from the oil tank to the reflector, with the light reflecting on these. When the boys heard your train approaching in back of them, they quickly switched the lantern to the rear of the car for protection, and its big reflector made you think it was a headlight.

Yes, sir, Mr. Spriegel, those section hands pumped like the devil up that hill; just before you stopped they were ready to jump, but it wasn't necessary. They got busy and beat you to Silver Lake Jct., where they lifted the hand-car off the track and put it in the car-house. I'll bet they sat back and laughed while you were looking for the "phantom train" you had followed up the hill.—A. C. Vest, (*A.C.L. engineer*), Box 123, Seffner, Fla.

* * *

DURING the years 1905-7 I was living in "No Man's Land," the Oklahoma panhandle section, sparsely settled with "nesters" and widely scattered cattle ranches. It was quite an event when our sheriff got an automobile; and I was given the job of chauffeur.

One night early in September we left Guymon to pick up a lawbreaker of Boise City, some 65 miles away. The road was unpaved, running east and west. We got our prisoner, and started back about 11 p.m. Immediately after leaving Boise City our attention was drawn to a light which appeared to be approaching, but although we drove straight toward it for three hours we seemed to come no closer. It was too bright to be in a nester's shack, and the AT&SF had not yet built into that part of the country.

For years I was puzzled; but having seen some unusual mirages, I think it was a locomotive headlight on the Rock Island, which runs diagonally through the strip. By checking up the alignment of the railroad and wagon road, I found that the engine—if that's what it was—must have been about 125 miles away.

This effect is due to the reflection of light through different strata of air when varying temperatures exist. Moving objects sometimes appear to move in opposite directions and often inverted. Such phenomenon, I believe, caused the mysterious headlight which Mr. Spriegel referred to. My father tells me that in the Okla. section, after a hot day when the air had begun to cool, he has seen headlights as far off as 150 miles look near enough to make them recheck their orders.—Geo. V. Hartman, 2331 Park Blvd., Oakland, Calif

Old Print from A. S. Pennoyer, Who Painted Jan. Front Cover

Old Fellows Who Used to Work on the Now Abandoned Colorado Midland Can Tell of Snow That Piled Deep and Cold in the Mountain Passes and How Hard It was for Gangs of Laborers to Clear the Tracks

Railroad Camera Club

Formerly the International Engine Picture Club

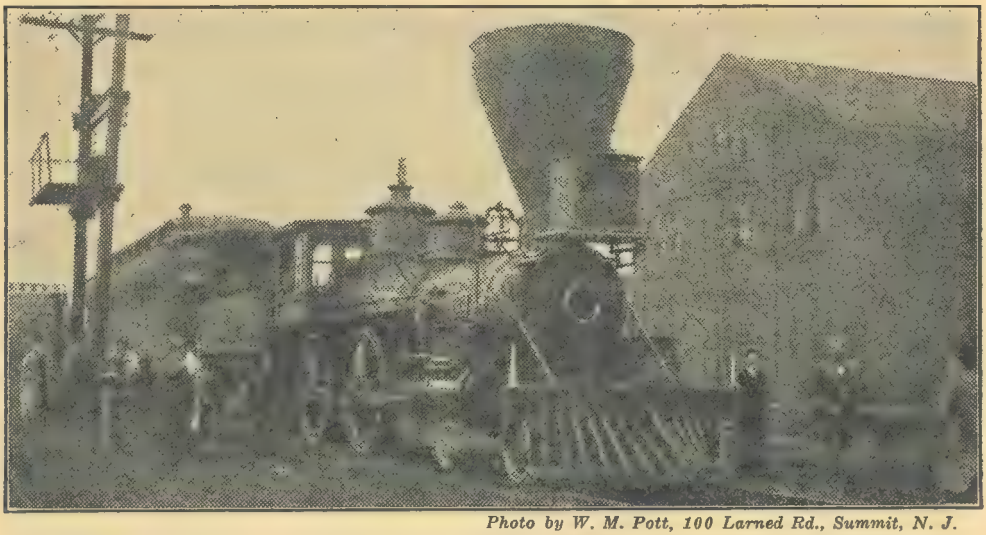


Photo by W. M. Pott, 100 Larned Rd., Summit, N. J.

The Baltimore & Ohio's Ancient 4-4-0, the "William Mason", Under Steam and Hauling an Old Coach for the Benefit of the Excursionists on October 10

HIGHLIGHTS of recent fan excursions: The jaunt from New York City to Baltimore on October 10, sponsored by this magazine and the New York Chapter of the Railway & Locomotive Historical Society, was attended by 460 fans, rainy weather keeping away many more. The Baltimore & Ohio outdid itself, firing up its ancient historical engines (see photo) and carting folks from one point of interest to another in flat cars. *George H. Emerson*, B&O's new 4-4-4-4 type, hauled the excursion train.

More than 300 West Coast fans, 150 from San Francisco and the rest from Los Angeles, rode the *Daylight* to San Luis Obispo on October 10. There they transferred to the three-foot-gage Pacific Coast Ry., which took them to Port San Luis, on the ocean, and back, in a train consisting of engine, coaches, flat cars, and an old three-foot-gage trolley car used as an "air-conditioned" observation car. Photos on page 137. Returning from San Luis Obispo, the SP provided a special train with modern lounge car for each party. There was a waiting list in both Los Angeles and San Francisco, but since the size of the party was limited, many folks were disappointed. The trip was sponsored and arranged by the Pacific Coast Chapter of the R&LHS.

On October third the California-Nevada Historical Society ran a short inspection tour over the Western Pacific, from San Francisco and Oakland to Sacramento via Stockton and Lodi, 280 miles for $1. Some 350 attended, much to the amazement of the WP, who nevertheless rose to the occasion and passed out free rosters of motive power and employees' timetables.

One of the biggest of the year was the excursion from Chicago and Detroit to the Lima Locomotive Works in Lima, O., on October 10. More than 475 traveled from Chicago via the Pennsy, and about

Upper Photo by G. M. Best, 511 N. Sierra Drive, Beverly Hills, Calif.; Lower by G. H. Kneiss, 18 Forest Lane, Berkeley, Calif.

On the Excursion of the Pacific Coast Chapter of the Railway & Locomotive Historical Society: (Upper) Leaving San Luis Obispo for Port San Luis, on the Pacific Coast Narrow Gage. (Lower) The "Air-Conditioned" Observation Car on the Pacific Coast

the same number came from Detroit on the Baltimore & Ohio. The Lima people displayed one of the new SP streamlined 4-8-4's with 80-inch drivers, and a Pere Marquette 2-8-4. On the way home two K-4's rolled the Chicago bunch from Fort Wayne to Englewood, 141 miles, in 112 minutes, or at nearly a 76-mile average.

Another well-attended trip out of Chicago occurred on September 26, sponsored by the Chicago Chapter of the R&LHS, the Model Builders' Guild, and the Railroad Club of Chicago. The Illinois Central hauled 316 fans to Clinton behind rebuilt 4-8-2 No. 2500, then to Champaign to inspect the University of Illinois locomotive testing plant, and back to Chicago behind 4-6-4 No. 1. According to its public relations department, fans were delighted, and the IC was delighted both with the publicity and the financial returns.

A Midwest excursion of interest (mentioned in last month's issue), brought the first passenger train in years over the Whitewater Division of the Big Four. Gene Bock, Box 713, Anderson, Ind., says that nearly 300 passengers were on it; it left Indianapolis, rolled down to Cincinnati in

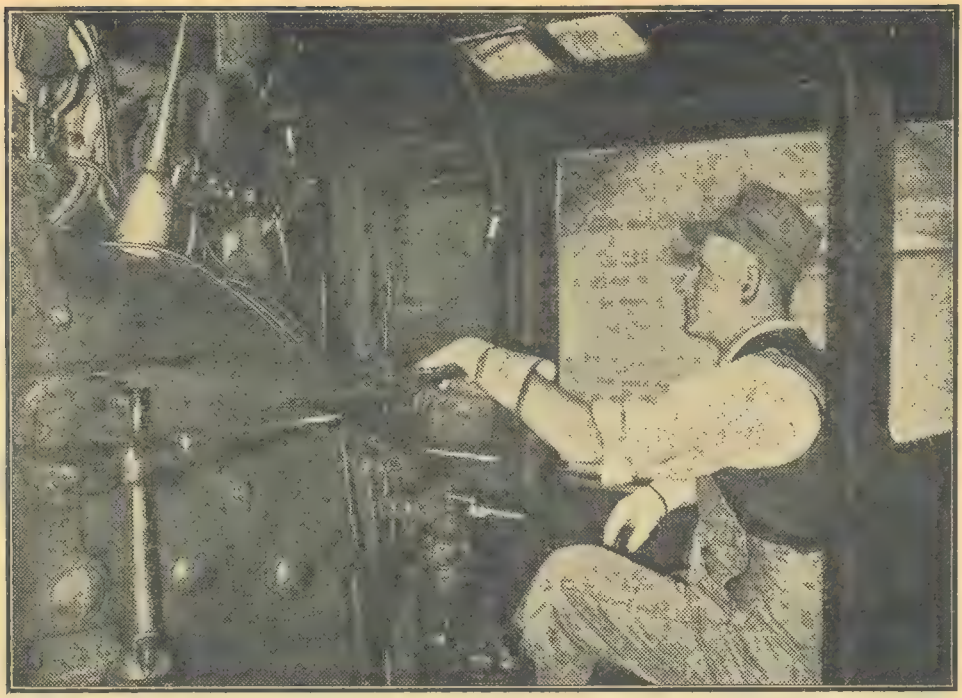


Photo by C. R. Hoser

Candid Camera Shot of Bruce C. Harshburger, Engineer of Kiashacoquillas Valley R. R. No. 6, Taken on the N. R. H. S. Excursion over That Line on Last August First

two hours, and then proceeded up over the Whitewater and back. The Big Four was so pleased it served everybody free watermelon.

The Railroad Enthusiasts (N. Y. Division) went down to Philadelphia on October 16, to hold a joint meeting with the Philadelphia Chapter and to look over the Franklin Institute's display.

The next day the Westchester Model Club's jaunt from New York City to the Readville, Mass., shops of the New Haven, accounted for more than 150 fans in and around New York.

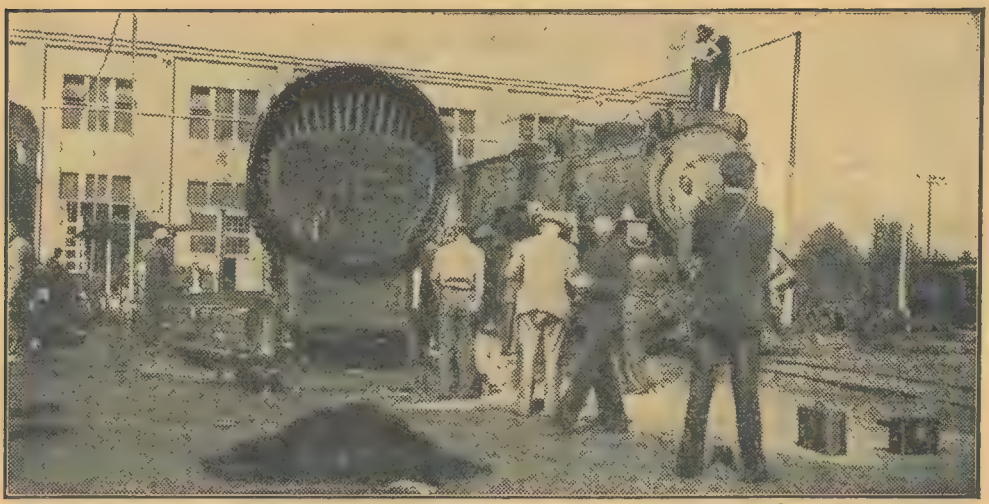
On October third more than 90 members and friends of the National Railway Historical Society made a tour of the Lehigh Valley Transit's line from Philadelphia to Allentown and Bethlehem in real old-time interurbans part of the way, in local cars around Allentown and Bethlehem, and in the Philadelphia & Western's bullet cars from Norristown back home.

Another electric excursion took place on October 17th, out of Toledo on the Toledo-Marblehead Ohio Public Service line. It also was sponsored by the National Railway Historical Society.

* * *

The California-Nevada Railroad Historical Society's second annual exhibit and engine picture contest will be held in Oakland, Calif., from January 31 to February third, 1939. There are no fees; entries must be in by January 20 (915 Broadway, Oakland, Calif., is the address); no wreck photos are wanted if the road is still operating under the same or a similar name; return postage must be enclosed.

Prints which are competitive must be amateur work. Each person is limited to 20 prints, which must be mounted on stiff paper or light cardboard no larger than 20 x 30 inches. Each print must be titled, bear exhibitor's name and address and type of camera used. No copies, no prints from purchased negatives, no purchased prints, and none larger than 3¼ x 5½



Some of the 350 Fans Who Traveled from Oakland and San Francisco, Calif., to the Western Pacific's Shops at Sacramento on October Third. On the Right Is No. 305, 2-8-2 Type, Ready for Shopping

inches. Prints may be made by a professional finisher, but must be from your own negative. Non-competitive pictures of any kind may be entered provided they depict railroad subjects.

* * *

We've just heard from A. Van Gytenbeek, whose specialty is exact replicas of great locomotives as paperweights. The NYC Hudson type (9½ x 2½ x 2), mounted on heavy padded base, is $2.75 ($3 west of the Mississippi and in Canada); the UPU 4-6-6-4 Challenger type (10½ x 2½ x 2) is $3 ($3.25 west of Mississippi and in Canada). In addition, he offers the UP engine mounted on an onyx base with pen and pencil tray for $10, express collect. They go well either on desk or mantel. Mr. Gytenbeek's address is 30 Church St., New York City.

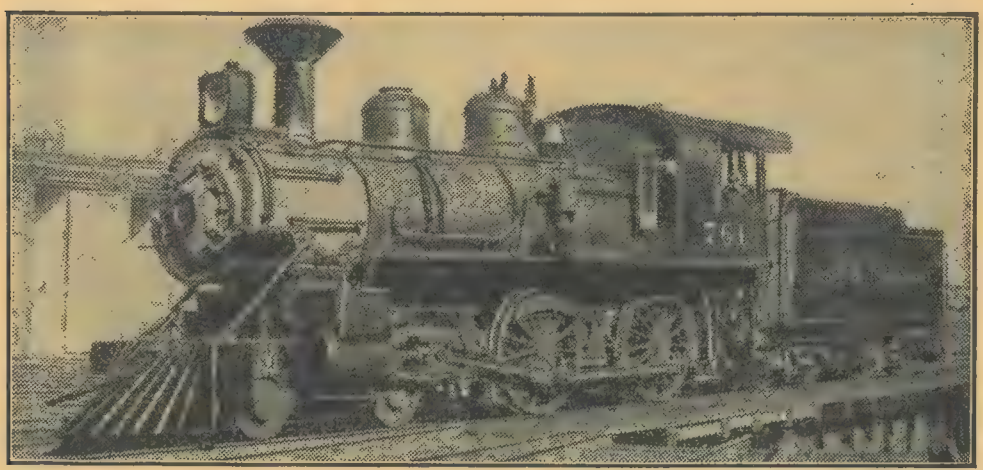


Photo by Wesley Krambeck, 4406 Belleview, Kansas City, Mo.

Rock Island 4-4-0 No. 761, Equipped by the Roundhouse Force at Herington, Kan., with Diamond Stack, Oil Headlight, Old-Time Link and Pin for the Goldesta Celebration Last August 30 to September 2. Built by the Rock Island In 1896 as No. 1101, She Later Became No. 661, Then 561. and Finally, Last Summer. to 761. She Has 19½ x 26-Inch Cylinders. 69-Inch Drivers

READERS who collect, buy, sell, exchange, or make pictures of locomotives, trains, cars, etc., are listed here as members of the Railroad Camera Club. This Club also includes other railroad hobbies such as collecting railroad books, tickets, timetables, train orders, trolley transfers, etc.

There are no fees, no dues. Names are published in good faith—but without guarantee.

Membership card and pin are given free to anyone sending us the latest Reader's Choice coupon (page 143) and self-addressed stamped envelope. (If you live in Canada or any foreign land, enclose a loose 3c stamp from your country instead of the envelope.)

If you don't want to clip the magazine, make your own R. C. coupon.

Address Railroad Magazine, 280 Broadway, New York City. Tell us what you want or what you offer. Unless you do so, your name will not be printed here.

The Photo Exchange

A. D. ANDERSON, 247 S. Flower St., Los Angeles, Calif., trades timetables, transfers and pix for pix only. Will send 10 dif. PE tables and list & sample in return for your list & sample; foreign fans especially welcome.

F. E. ARDREY, Jr., Aiken, S. C., has 370 copies *Loco. Engineers Journal*, 1891-1935, for best offers.

L. W. ATWOOD, Lilley Bldg., Waterbury, Conn., offers 2 old-time photos: Erie No. 972, built 1895 or so; American type wood-burner No. 133, tender No. 132, apparently G&W around 1875.

* * *

ALLEN BAIRD, 808 Pennsylvania Ave., Colton, Calif., has over 100 dif. rosters for sale; send 3c stamp for list.

NICHOLAS BANCHICH, Jr., Box 6, Port Clinton, Ohio, wants NYC, CPR and MeC lanterns, rule books and emp. tables; also New England pix. Has pix of Rexall train, many NYC (incl. *Mercury*) and Culver & Port Clinton.

ROBERT BANKS, 16 W. 77th St., N. Y. City, will buy pub. tables of Roby & Northern, Nashville-Franklin Ry. and Houghton County Traction.

D. M. BATEMAN, 475 14th St., Hollyburn, B. C., Canada, has copy of Feb. '18 *Railroad Man's*. What offers?

R. A. BEALS, Box 986, Wickenburg, Ariz., starting; advice wanted.

EUGENE BECRAFT, 2316 Ontario St., Fort Wayne, Ind., has 500 Chi. transfers and con. reports of aband. Ft. Wayne & Lima; wants to hear from other young fans.

B. E. BISHOP, 856 Main St., Santa Clara, Calif., has many emp. tables, *Official Guides* and emp. mags. to exchange or sell.

R. W. BIERMANN, 4338 20th St., San Francisco, Calif., will send list & 5 116 or 616 size samples, 25c. Wants NP photos & negs. Trades photos of following fan trips: WP; Santa Fe-Sierra; and SP-NCNG.

BILLI BOWEN, 1755 N. Cambridge Ave., Milwaukee, Wis., wants photos of RI Atlantics and 10-wheelers; also any n.g. eqpt. and locos, esp. D&RGW.

E. SCOTT BOWERBANK, 139 Farnham Ave., Toronto, Ont., Canada, wants old FEC timetables with schedule of *Havana Special* to Key West.

BOB BREWSTER, Box 1121, Vallejo, Calif., wants to trade 30 SP train orders. (13 for *City of San Francisco*) with boys around Bay region.

JOSEPH BRISLIN, 15 Liberty St., Montpelier, Vt., will trade train orders, tables or engine prints for pix of circus or carnival trains.

ROBERT BROWN, 665 Dovercourt Rd., Toronto 4, Ont., Canada, starting collection of modern, elec. and streamlined locos.

WAYNE BRUMBAUGH, 2567 Bedford Ave., Brooklyn, N. Y., has many action photos of principal trains around N. Y., both freight & pass. power.

HENRY BRUNCKHORST, 317 Alewife Brook Pkwy., W. Somerville, Mass., buys side views only of B&M and New Haven locos; send price list first.

R. BUCKHOUT, 11 Midland Ave., Glen Ridge, N. J., offers colored Xmas cards with reproductions of old-time Currier and Ives engines and train scenes—set of 6 assorted folders, 50c postpaid.

B. C. BURKHOLDER, 7 Central Ave., Primos, Pa., wants Rdg engine photos, incl. Santa Fe and Mallet types; state size & price.

JAMES F. BYRNE, E. McKeesport, Pa., has many 116 & p.c. sizes U.S., Canadian & foreign; specializes in PRR and B&O; ea. list, 10c ea.

* * *

CHARLES CARR, 144 Sylvania St., Germantown, Phila., Pa., will buy and trade engine pix.

FRANK CLUTE, 1624 Ave. A, Schenectady, N. Y., will sell 11½x14 painting by W. H. Foster, *The 20th Century Ltd.—Greatest Train in the World*, to highest bidder.

JAMES COLEMAN, 6717 East End Ave., Chicago, will pay 50c plus postage for *Official Guides* '28, '29, '35, '36; write first. Also trades or sells RI, PRR, Chi. Surface Lines, CA&E, Tri Cities Ry. and other roads.

HARRY COTTERELL, Jr., 36 Alexander St., Newark, N. J., has Mar.-Dec. '36 *Railroad Stories*. Wants 122 size DT&I photos.

E. T. COUTERMARSH, 21 West St., Lebanon, N. H., has 116 size B&M and CV locos, 8c ea., 7 for 50c.; send stamped envelope for list.

PAUL W. CRUICKSHANK, 909 W. Clark St., Champaign, Ill., offers these 2 books: "Loco. Reference," by Thomas Ennis, 1920, $4; "Rudimentary Treatise on the Loco. Engine," by G. Drysdale Dempsey, pub. in London 1856, $2. Also many back *Railroad Stories*, incl. '34 copies bound in 2 volumes of 6 ea.

C. B. CULMER, Tylersburg, Pa., offers Feb. '33; May & Dec. '34; July, Aug., Sept. '35; Jan.-Apr., July '36 *Railroad Stories* in trade for Mar., June, Aug., Nov. '31; May '33; Oct. '34 and '35 and May '36. Will buy Jan.-Sept., Nov., Dec. '30; Jan., Mar.-Dec. '32; send prices.

* * *

Miss EME DAY, Yucaipa, Calif., offers hand-made Xmas cards with railway seals—sample, 10c; also Game of the Rails. Complete assortment cards and seals with the Game, $2.

HENRY DEAN, 141 Garson Ave., Rochester, N. Y., offers copies April '10 and Dec. '29 *Railroad Man's*. Best offer takes.

HELEN DEGNAN, 277 Eight St., Jersey City, N. J., starting. Wants lists of Eastern locos.

PHIL DEGNAN, 75 Trowbridge Circuit, Worcester, Mass., wants April '33 *Railroad Stories*.

K. DUCAT, 1008 S. 28 St., Milwaukee, Wis., has many 116 size prints and tinplate items to trade for Pennsy and NYC calendar heads any year, or for other large colored pictures or prints. Write for his list stating what you have.

* * *

P. W. FINCHER, 755 Charleston St., Mobile, Ala., wants Jan. '36 *Railroad Stories*.

ALFRED FRIEDLANDER, 2708 Johnstone Place, Cincinnati, O., wants to buy and trade recent emp. tables; also collects pub. timetables before 1900. Wants to hear from local members interested in organizing fan trip.

* * *

ED GARDNER, 47 Charles St., Metuchen, N. J., has many old trolley transfers and PRR, LV, LVT, P&W photos for sale or trade for negs. and tts. of Mauch Chunk Switchback. Two '36 *Official Guides* to trade for best offer in Md&Pa, LV, CPR 116 or 616 size negs.

* * *

BERNARD GOLDBERG, 50 Lincoln Rd., Brooklyn, N. Y., is disposing of collection prints & negs. of PRR and others—prints 5c ea., negs., 12 for $1. PRR roster, 80c.

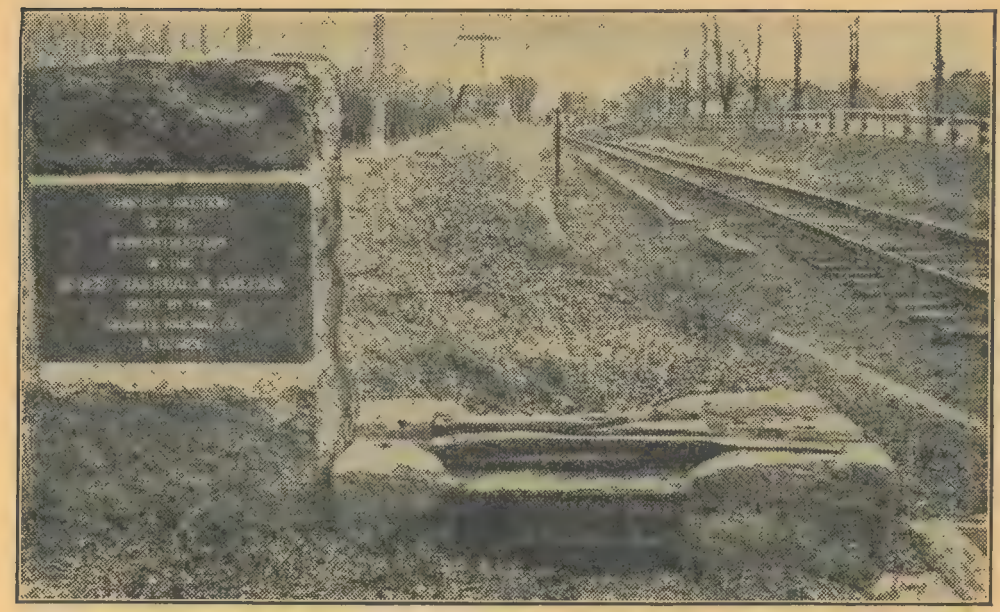


Photo by Charles Brown, 295 Eliot St., Milton, Mass.

America Had Only Two Other Railroads When the Mauch Chunk Switchback Was Built. Photo Shows the Remains of One of Them—at East Milton, Mass., on a Branch of the NYNH&H. The Lettering at the Left Says: "This Is a Section of the Superstructure of the Oldest Railroad in America. Built by the Granite Railway Co., A.D. 1826." The Other Inscription Is: "This Frog Was Exhibited at the World's Fair, Chicago, 1893." Note in the Background some Granite Ties Left from the Original Passing Track Used by Horse Cars Halfway between the Quarries and Tidewater

W. A. GOLDBERG, 6952 Clyde Ave., Chicago, wants pix of trolleys used as postal cars; also letters and postcards showing trolley cancellations. Will pay cash or trade postal pix English locos.

W. R. GORDON, 1404 Blossom Rd., Rochester, N. Y., will sell or trade 400 engine & trolley snaps 116 size, also negs., for pub. tables.

G. W. GRAHAM, 49 S. Cherokee St., Denver, Colo., has D&RGW, D&SL, Santa Fe, C&S, UP, CB&Q 116 prints, 5c ea.

RALPH GRAVES, 415 N. Jackson St., Enid, Okla., starting loco pix collection all roads, esp. Frisco. Wants to hear from local fans.

H. E. GRAY, 46 Grafton St., Woollahra, Sydney, N. S. W., Australia, is in market for back *Railroad Stories*. Wants to hear from members world over.

WM. GRIFFITHS, Box 299, Chadwick, N. Y., will sell many p.c. photos, train orders and pub. & emp. tables.

* * *

R. E. HAMMONS, 908 Rock Island Ave., El Dorado, Ark., will trade or sell MoP, E&W, RI, A&LM, AD&N, W&OS, W&SR, SSW negs., lanterns, rule books and uniform buttons; send 3c stamp for list.

GRAHAME HARDY, 915 Broadway, Oakland, Calif., offers for sale or trade Northern Liberties RR Loan Bonds and City of Phil. Bond containing pix of old engine and engine & cars, 2 for $1 postpaid.

HAROLD HOLEFIELD, 232 23rd N., Seattle, Wash., wants prints NP trains and engines, also Burlington *Zephyr*.

KENNETH HOBSON, 466 West Hanover St., Trenton, N. J., collects pix all roads, esp. Rdg., B&O, CNJ.

ROY HUBBARD, 645 N. 63rd St., Phila., Pa., offers railroad Xmas cards, 10c ea., 12 for $1. Your name imprinted, 50c extra, any quantity. If you want any special picture, design or lettering, send for estimate.

DAVID HUBER, 512 Beacon St., Boston, Mass., will trade 116 size B&M pix for B&M emp. tables, any date.

CHARLES HYER, 5330 Colorado Ave. N. W., Washington, D. C., has many weekly passes of Capital Transit Co. to trade for other trolley material, or what have you.

* * *

WALTER ISSITT, 212 N. 33rd, Phila., Pa., will trade shots of PRR and Rdg for PM and Wab.

HERBERT ISELIN, 1 W. 85th St., N. Y. City, has pub. tts. of all 7 div. of LI, 50c set, or trade for other complete sets of div. timetables other roads.

* * *

WM. A. JAMES, 101 Gladstone Rd., Pittsburgh, Pa., has many 116 size photos local roads. Wants B&O; PRR N-2sa, L-2s, CC-2s, E-7s, A-5s; NYC, C&NW, CMStP&P, SAL, RF&P, Va Central, ACL. Send 5c for list & sample.

* * *

H. M. KENNICKELL, Jr., Mars Hill College, Mars Hill, N. C., buys ACL and CofGa engine prints and ACL train pix; wants to hear from ACL fans.

A. KLING, 320 Lincoln, San Rafael, Calif., will buy old or late copies *Baldwin Loco Mag.*

D. L. KNIFSEND, 3 Octavia St., San Rafael, Calif., will sell SP train orders, 3 for 1c plus postage, as long as supply lasts.

* * *

LEONARD LALOR, Railway Station, Minyip, Victoria, Australia, will exchange Australian rail information, etc., for old copies *Railroad Man's*.

PAUL LEISTER, 318 S. 2nd St., Sunbury, Pa., has Pennsy rule book of Oct. 1889; send offers.

H. M. LOBB, R. D. 1, Erie, Pa., will trade for 116 size engine negs., Van Metre's "Trains, Tracks and Travel."

BRYANT LONG, 40 Spencer St., Hyattsville, Md., will buy pix of trolley and interurban cars and scenes; trades data on same.

JOHN LYDECKER, 48 Lincoln St., Glen Ridge, N. J., wants prints Camelbacks all roads; has small DL&W power.

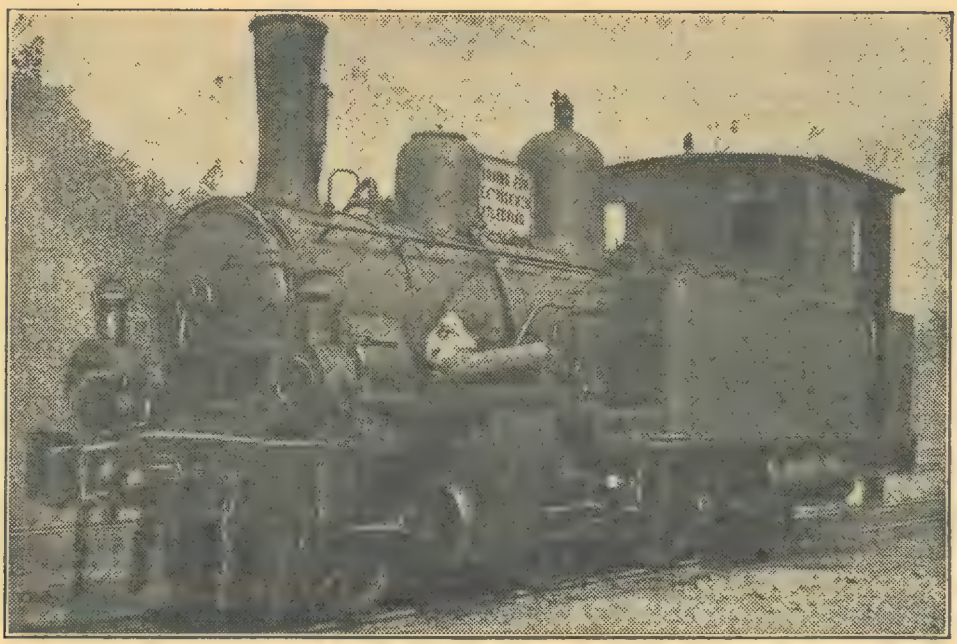


Photo by A. W. Lekstrom, Ironton, Minn.

Tank Engine of the Narrow-Gage Karlstad-Munkfors R. R. of Sweden. She Is Equipped with the Allen Outside Valve Gear

A. B. LYON, 2123 McDowell St., Augusta, Ga., will buy statistical issue *Railway Age* covering the year 1925.

* * *

H. MANDEL, 12625 Notre Dame East, Montreal, Canada, starting collection of p.c. size side view prints of NP, SP, Sou, D&RGW and Santa Fe locos.

H. McMICHAEL, 1007 E. Marion St., Seattle, Wash., has 116 size NP, Milw, GN, PC prints; send dime for list & sample. With ea. $1 order (15 prints), free 5x7 enlargement.

GEORGE MEISTER, Jr., 77 Riggs Place, West Orange, N. J., offers hand-colored RR Xmas cards, 12 for $1, or 10 for $1 with better grade envelope.

JOHN MELLIN, 173 W. 188 St., N. Y. City, wants to hear from foreign fans who'll trade RR pencils; also offers NYC lantern for foreign one.

WM. J. MILLER, 14950 Mendota, Detroit, Mich., has Dec. '29 to Dec. '36 *Railroad Stories* for best offer. Trades emp. tts. for 116 or larger negs., esp. p.c. neg. of Vgn Triplex Mallet.

MARVIN MITCHELL, 1026 E. 105th St., Cleveland, Ohio, wishes to dispose of series of tickets for one continuous first-class passage from Cincinnati to New York in 1859; also uncancelled bond issued by Junction RR Co. (now NYC) in 1851. Send offers.

BLAKE MOORE, 262 Glenview Ave., Toronto, Ont., Canada, wishes to dispose of following: many '30, '31 and '32 *Railway Age;* 15 *Railroad Stories* '33, '34, '35; July '37 *Baldwin Loco Mag.;* '37 PRR calendar; Sept. '36 *Official Guide;* and photos of Grand Trunk wreck in 1900, 10c ea. plus postage.

CHARLES F. MUNGER, Jr., 57 Pacific St., New London, Conn., has p.c. and 116 size New Haven and CV photos; also old tts., tickets, mileage cards, etc.; 3c stamp for list.

* * *

CARL OBERT, 2345 Geneva Terr., Chicago, Ill., wants to exchange motion picture film (8 m.m. projector) with English or Scottish fans.

WM. O'BRIEN, 337 E. 28th St., N. Y. City, will trade U.S. commemorative stamps for trolley tokens; also has N. Y. trolley transfers.

CHAS. OLSON, 4848 N. Merrimac Ave., Chicago, Ill., would like to obtain photo of C&NW switch engine 222 on Galena Div. 1895-1902, esp. one with engine crew incl. his father, Otto Olson; write first.

RALPH PARK, 4151 School St., Chicago, has 116 size of Milw. and IC fan trips, others. Wants Frisco 1500-1505, 1515 and 90; also any Mother Hubbards and old-timers.

HAROLD PHILLIPS, Box 543, Medfield, Mass., wants Jan 4th and 18th, 1919, issues *Railroad Man's.*

J. E. PLATT, 97 Inchbury St., Hamilton, Ont., Canada, trades CNR negs. for negs. of CNR 5587, GT 5559, 5582-3, 5604-5 and other CN, GT and GTW.

G. R. POPKINS, 1463 Chapin St. N. W., Washington, D. C., wants Jan. '34 *Railroad Stories;* first send price.

HOWARD PORTER, 14 E. 48th St., N. Y. City, has many old-time rail photos, clippings, paintings. Fans in vicinity are invited to drop in.

STANLEY PRESCOTT, 70 Pleasant St., Rockland, Me., has 116 size MeC, B&M, Lime Rock, GT, New Haven, WW&F, B&ML and other New England engines, 5c ea., or trades for other N. E. roads. Send 3c stamp for list, or 5c for list & sample.

H. N. PROCTOR, 28 Wyoming Ave., Lynbrook, N. Y., has negs. all LI classes and many misc. roads to trade for photos and negs. all roads, and builders' photos. Swaps large collection tts. for negs., pix or cash.

* * *

W. W. ROBINSON, Box 31, Batavia, N. Y., will buy old tts. of NYS&W, NJM, MofNJ, Montclair, P&E and NY&W. Also trades pub. & emp. tables of NYO&W, U&D, D&N, HT&W, ND&C, B&S and other Eastern roads.

S. ROSENFELD, 2054 Harrison Ave., Bronx, N. Y. City, wants U.S. trolley photos.

W. RUSSELL, 404 N. Broom St., Wilmington, Del., trades 116 size PRR negs. 1035, 5079 D-16sb; 696, 1113 H-8b; 1091, 1399 H-9; for same size PRR negs. E-7s, H-8a, H-8c, H-9sa and 9831, 9832 E-5s.

* * *

MILTON SANCHEZ, 101 W. 55th St. N. Y. City, wants Aug. '34 *Railroad Stories.*

LLOYD SEIDEL, 543 E. 181 St., N. Y. City, will buy or trade for photos of LI engines and an *Official Guide.*

G. SHARP, 3618 Revere Ave., Los Angeles, Calif., has 2 CM&StP rule books: "The Manual Block Signal Operation," 1898; "Employees on Double Track," 1910; also SP 1917 book "Heating & Lighting of Cars." Best offers take.

EARL SHEPHERD, 320 Albert St. W., Sault Ste. Marie, Ont., Canada, offers Feb. '37 and other *Railroad Stories*.

ERNEST SHERMAN, Box 75, Deerfield Mass., has B&M emp. tables, 20c ea.; also UP, NC&StL, Wab, CStPM&O, M&StL, CCC&StL, others to trade for small roads.

CLETUS SIMON, Kadoka, S. D., offers May '36 to date *Railroad Magazine*.

EMIL SKAK, Jr., 281 Goodhue St., St. Paul, Minn., will give 10c ea. for prints of CStPM&O engines 60-67 Class M-5, 401 or 209.

FRANK SMITH, Marcellus, Mich., has loco rosters of about 75 roads, incl Santa Fe, MichC, RI and C&O; send 3c stamp for list & prices. Wants LS&MS roster.

JIM SMITH, Cranbrook School, Bloomfield Hills, Mich., has many good 116 size prints trolleys and interurbans to sell or trade for others, esp. in Quebec, Toronto, Port Arthur, Vancouver, Winnipeg and cities in upper Mich.

RICHARD STAIR, Burbank, O., will make mech. drawings of locos in trade for pix, back nos. *Railroad Stories*, rosters or other material; first write.

C. T. STEEB, 318 W. El Camino Ave., N. Sacramento, Calif., has p.c. size RR scenes, mostly Western, 10c ea. plus postage.

VINCENT STENERSON, 3165 Decatur Ave., Bronx, N. Y. City, is starting collection of trolleys, interurbans, electrics and Diesel engines.

DONALD M. STREETER, 10593 W. Jefferson, River Rouge, Mich., will buy Pere Marquette photos.

EDWARD SUYDAM, 1579 Cerro Gordo St., Los Angeles, Calif., has 116 and 5x8 photos of *Daylight, Super Chief, City of Los Angeles*; also many locos, action shots. Send 10c for sample & list.

* * *

WM. J. TEZON, Gen. Del., Bonnville, Mo., has following *Railroad Stories* to dispose of: Dec. '29; Mar.-Sept., Nov. '30; Mar., Apr., July-Dec. '31; Jan., Feb., Apr., Aug., Oct.-Dec. '32; all '33; Jan.-Apr., June-Aug., Dec. '34; Jan., Mar., Aug. '35; Jan. '36 and Feb. '37.

W. H. THRALL, Jr., 3703 Legation St. N. W., Washington, D. C., has p.c. photos B&O, Sou, RF&P, SP, PRR, D&RGW and many others, 10c ea., 12 for $1; send 5c for list & sample.

* * *

E. VAN NOSTRAND, 546 Chauncey St., Brooklyn, N. Y., has photos of P&W, LV, Newell Bridge & Ry., SEL&BV, Lake Shore, C&LE, CN&C, DEP Co., many others; list & sample, 10c.

W. L. VAN PATTEN, 315 Platner St., Council Bluffs, Iowa, offers 2¼x4¼ prints of UP, C&NW, Burlington, CMStP&P, RI, IC, CAW, Wab. locos, 48c doz.

* * *

EARL WALKER, Box 396, Erwin, Tenn., has 616 photos of locos, shops, loco graveyards, etc., 5c ea.; also train orders for Clinchfield RR's 97, one of world's fastest freights.

LEWIS WALTER, 34 Highview St., Norwood, Mass., will trade 116 size New Haven, B&M, B&A and other Eastern & S.W. roads. Has 5x7 copy photos of B&P, Old Colony and NY&NE engines and old-time wrecks for sale; also 116 size copy photos of roads now part of B&M.

WM. H. WEBER, 1135 E. Haney Ave., S. Bend, Ind., offers 24x78 detailed drawings of NYC Hudson or Pennsy K-4s types, $1.25 postpaid.

JOHN F. WHEELER, 207 Fulton St., Mobile, Ala., will trade for or buy a Jan. '34 *Railroad Stories*.

RAYMOND WHITTON, 119 S. Robert Blvd., Dayton, O., wants photos THI&E, UTCo of Ind, Ft. Wayne, Van West & Lima and DUR interurbans.

JEFFREY WINSLOW, 12 Harding Parkway, Mt. Vernon, N. Y., offers set of 12 size 116 photos & roster of aband. NY&Queens Transit, 75c.

C. WM. WITBECK, 1803 Biltmore St. N.W., Washington, D. C., offers 122 size prints (on postcards) PRV, C&C, NON&N, M&BR, MissW, MissCen, B&HS, DK&W, FC&G, GM&N, OH&CC, L&NW, SLB&S, NO&LC and several log roads, 10c ea., 12 for $1. Wants photos & information on old Miss. and Louisiana pikes; first write.

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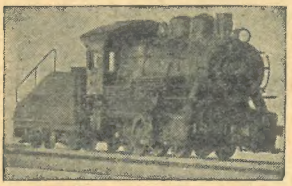

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Statement of the ownership, management, etc., of RAILROAD MAGAZINE, published monthly at New York, N. Y., for October 1, 1937. Required by the Act of Congress of August 24, 1912, and March 3, 1933.

State of NEW YORK } ss.:
County of NEW YORK }

Before me, a Notary Public, in and for the State and County aforesaid, personally appeared WILLIAM T. DEWART, who, having been duly sworn according to law, deposes and says that he is the President of The Frank A. Munsey Company, publisher of RAILROAD STORIES, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in Section 537, Postal Laws and Regulations. To wit:

That the names and addresses of the Publisher, Editor, Managing Editor, and Business Manager are:

Publisher—The Frank A. Munsey Company, 280 Broadway, New York, N. Y.

Editor—Freeman H. Hubbard, 280 Broadway, New York, N. Y.

Managing Editor—John F. R. Byrne, 280 Broadway, New York, N. Y.

Business Manager—Harry B. Ward, 280 Broadway, New York, N. Y.

That the Owners are: (If a corporation give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.)

The Frank A. Munsey Company, 280 Broadway, New York, N. Y.

C. W. H. Corporation, 280 Broadway, New York, N. Y.

William T. Dewart, 280 Broadway, New York, N. Y.

Mary W. Dewart, 280 Broadway, New York, N. Y.

William T. Dewart, Jr., 280 Broadway, New York, N. Y.

Thomas W. Dewart, 280 Broadway, New York, N. Y.

Mary Dewart, 280 Broadway, New York, N. Y.

That the known bondholders, mortgagees, and other security holders, owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are:

None.

That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company, but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

WILLIAM T. DEWART, President.

Sworn to and subscribed before me this 1st day of October, 1937.

{SEAL}

GEORGE H. BOLLWINKEL, Notary Public, Nassau County No. 133. Term expires March 30, 1939. Certificate filed in New York County No. 487. New York Register's No. 9-B-360.

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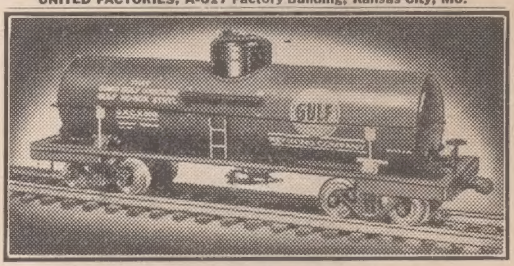

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